MIRANT COMMUNITY MONITORING GROUP (MCMG) MEETING

AGENDA

Wednesday, December 14, 2005
Room: Council Work Room (2nd Floor), City Hall, 301 King Street
7:00 P.M.

7:00 INTRODUCTION OF MCMG MEMBERS AND ATTENDEES

7:10 STATUS OVERVIEW
William Skrabak, Chief, Div. Of Environmental Quality, T&ES,
Ignacio Pessoa, City Attorney

7:30 MIRANT ISSUES AND UPDATES :
- LEGAL
- FERC
- FAA

Ignacio Pessoa, City Attorney

8:00 MIRANT'S FACILITY OPERATIONSS:
- EXISTING OPERATIONAL STATUS
- TRONA TESTING
- FUTURE OPERATIONAL STATUS

William Skrabak, T&ES and Mike Dowd, Enforcement Manager, VADEQ

8:30 DISCUSSION: MCMG MEMBERS

9:00 MEETING ADJOURNED

Handouts:

Issues Tracking Matrix

Recent Correspondence with VA Department of Environmental Quality and News Articles

Handout

1. and 2.
Letter from Mirant to VADEQ dated 12/9/2005 and 12/7/2005 requesting Unit #1 operation 24 hrs. a day.

3.
Letter from Mirant to VADEQ dated 11/16/2005 informing VADEQ of Lower Sulfur coal use

4.
Trona Testing Schedule

5.
VADEQ approval to Mirant for testing Trona

6.
City's Concerns to VADEQ regarding revised Trona testing protocols

7
VADEQ's letter to Mirant Re: Initial Trona Proposal by Mirant dated 10/27/2005

8
City letter to VADEQ re: Inital Trona Proposal by Mirant dated 10/24/2005

9.
Initial Trona Proposal by Mirant to VADEQ dated 10/14/05

#1

Mirant Potomac River, LLC
1400 N. Royal Street, Alexandria, VA 22314
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MIRANT

December 9, 2005

Robert G. Burnley, Director
Commonwealth of Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 22319

Virginia Department of Environmental Quality:
Order by Consent Issued to Mirant Potomac River, LLC

Dear Mr. Burnley,

Enclosed is Update #2 to "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant," which Mirant Potomac River, LLC ("Mirant") is providing you in accordance with our December 7, 2005 proposal for enhanced operation of Unit 1 with reduced SO2 emissions. In the letter, Mirant proposed to operate Unit 1 using Trona injection and lower sulfur coal to manage SO2 emissions and subject to the SO2 tons-per-day emission cap of 7.4 tons per calendar day, but unconstrained as to hours of operation and unit output. The enclosed Update #2 demonstrates that Unit 1 operating at full load 24 hrs a day with a 30% SO2 reduction from trona injection results in ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2. Because the modeling does not replicate how Mirant will actually operate the plant (the actual load varies over a given 24 hour period), but rather takes a snapshot of a particular load over a 24 hour period, Mirant will operate the plant subject to both the 7.4 tons per day cap and a rolling 24-hour rate limit of 0.89 /mmBtu at all loads so as to assure that there is no modeled exceedance even in a hypothetical scenario.

Thank you for your attention to these matters. Please let us know if you need any further information.

Sincerely,

Lisa D. Johnson
President, Mirant Potomac River, LLC

cc: Deborah Jennings, Esq.

Mirant Potomac River, LLC
Alexandria, VA

Update 2 to:

A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant

Modeling Unit 1 Emissions at Maximum and Minimum Loads

ENSR Corporation
December 8, 2005
Document Number 10350-002-410 (Update 2)

1.0 INTRODUCTION

This report describes AERMOD modeling results performed for Unit 1 at Mirant's Potomac River Generating Station. The purpose of these runs was to demonstrate that operation of Unit 1 for 24 hours a day at loads from 35 MW to 88 MW with the use of trona to reduce SO_2 emissions will not cause or contribute to modeled exceedances of the National Ambient Air Quality Standards (NAAQS). Mirant proposes to use trona on an as needed basis to limit SO_2 emissions to less than 0.89 lb/MMBtu and 14,800 lb/day, whichever is more stringent.

Section 2 of this report presents the stack and emission parameters included in the modeling. Section 3 presents modeling results and conclusions.

2.0 MODEL INPUTS

The current modeling presented in this report is based on SO_2 emissions from Unit 1 at maximum output (88 MW) of 616.7 lb/hr. This emission rate is based on the Update # 1 emission cap of 14,800 lb/day (14,800 lb/day x 1 day/24 hr = 616.7 lb/hr). The current coal averages 1.2 lb/MMBtu while the current permit limit is 1.52 lb SO_2/MMBtu. Compliance with the emission cap at maximum output will be achieved by using trona injection. If the Unit 1 is operated at full load for 24 hours, Mirant will comply with an emission cap of 14,800 lb/day by limiting SO_2 emissions to 0.586 lb/MMBtu.

Mirant is proposing to limit SO_2 emissions to 0.89 lb/MMBtu or 14,800 lb/day, whichever is more stringent. At the minimum load of 35 MW, 0.89 lb/MMBtu is the more stringent limit. At 35 MW, the heat rate is 14,000 Btu/kWh. Therefore, the modeled SO_2 emission rate at minimum load is 436.2 lb/hr (35 MW x 1,000 kW/MW x 14,000 Btu/kWh x 1 MMBtu/1,000,000 Btu x 0.890 lb/MMBtu= 436.2 b/hr). Compliance will be achieved by using trona injection.

Stack PM_{10} emissions are identical to the maximum load rates used in the September 2005 Update #1 report, which were 63.2 lb/hr. Fugitive emission sources are also identical to the Update #1 report, which were set to 20% of what they are when the plant is operating at maximum output. Fugitive PM_{10} emissions from the coal pile were not reduced.

NOx emissions are identical to the maximum load rates used in the original August 2005 report, which were 473.9 lb/hr at a rate of 0.45 lb/MMBtu.

Table 2-1 and Table 2-2 shows the stack and flue gas exit parameters used in modeling Unit 1 stack emissions and fugitive sources.

Table 2-1 - Stack and Emission Parameters Used in the Modeling

Point Source	Height (m)	Diameter (m)	Temp (K)		Exit Velocity (m/s)		Emissions (g/sec)			
							SO_2		PM_{10}	NOx
			35 MW	*88 MW*	*35 MW*	*88 MW*	*35 MW*	*88MW*	*88MW*	*88MW*
Boiler 1/Stack 1	48.2	2.6	442.6	444.3	19.0	35.7	54.96	77.7	8.0	59.7
Fly Ash Silo	33.6	1.0	293.0		0.1		0.0		0.0	0.0
Fly Ash Silo	33.6	1.0	293.0		0.1		0.0		0.0	0.0
Bottom Ash Silo	31.0	1.0	293.0		0.1		0.0		0.0	0.0

Table 2-2 - Mirant Potomac: Fugitive Sources

Area Sources	Size	Height	PM_{10} Existing Emissions			
	m^2	m	lb/hr	tpy	g/sec	g/sec-m^2
Ash Loader Upgrade	546	2.0	0.01	0.01	0.001	2.36E-06
Coal Pile Wind Erosion and Dust Suppression	17,679	4.6	0.93	1.12	0.118	6.66E-06
Coal Stackout Conveyor Dust Suppression	263	9.1	0.01	0.04	0.001	4.38E-06
Coal Railcar Unloading Dust Suppression	288	1.0	0.02	0.01	0.003	1.08E-05
Ash trucks on Paved Roads	5,886	1.0	0.12	0.24	0.015	2.57E-06

Notes:
Coal Pile = 4 acres = 17,679 m^2
Modeled height of coal pile = one half of average pile height = 30 feet x 0.5 = 15 feet (4.6 meters)
Modeled height stackout conveyor dust supression = average height of coal pile (9.1 meters)
Resuspended roadway dust from paved roads: area = 2 x 0.3 miles x 20 feet wide = 5,886 square meters

3.0 MODELING RESULTS

3.1 Sulfur Dioxide (SO_2) Modeling Results

Table 3-1 and Table 3-2 presents the results of modeling SO_2 emissions from Potomac River Unit 1 at maximum output (88 MW) and minimum output (35MW), respectively. Highest second highest 3-hour and 24-hour impacts and highest annual average impacts for each year are presented in the tables. The modeled impacts are added to a monitored background value of 51 $\mu g/m^3$, as used in the September 2005 Update #1 report.

Maximum Load Results

As shown in Table 3-1, the highest second highest 3-hour average SO_2 concentration is 783.8 $\mu g/m^3$. This concentration is below the 1,300 $\mu g/m^3$ 3-hour NAAQS standard. The highest second highest 24-hour average concentration is 268.9 $\mu g/m^3$. This concentration is below the 365 $\mu g/m^3$ 24-hour NAAQS standard. The highest annual average SO_2 concentration is 41.6 $\mu g/m^3$, which is also below the 80 $\mu g/m^3$ annual NAAQS.

Minimum Load Results

As shown in Table 3-2, the highest second highest 3-hour average SO_2 concentration is 813.8 $\mu g/m^3$. This concentration is below the 1,300 $\mu g/m^3$ 3-hour NAAQS standard. The highest second highest 24-hour average concentration is 364 $\mu g/m^3$. This concentration is below the 365 $\mu g/m^3$ 24-hour NAAQS standard. The highest annual average SO_2 concentration is 64.3 $\mu g/m^3$, which is also below the 80 $\mu g/m^3$ annual NAAQS.

3.2 PM_{10} Results

Table 3-3 presents the results of modeling PM_{10} emissions from Unit 1 stack plus all other non-combustion sources at the Potomac River Generating Station. The highest second highest 24-hour average concentration is 100.3 $\mu g/m^3$, which is below the 150 $\mu g/m^3$ 24-hour NAAQS standard. The highest annual average concentration of 33.0 $\mu g/m^3$ is below the 50 $\mu g/m^3$ annual NAAQS.

3.3 Nitrogen Oxides (as NO_2) Results

Table 3-4 presents the results of modeling Unit 1 NOx emissions at maximum output. The highest predicted annual NO_2 concentration of 63.8 $\mu g/m^3$ is below the 100 $\mu g/m^3$ annual NAAQS standard.

3.4 Conclusions

The AERMOD modeling results demonstrate that operation of Unit 1 at loads from 35 MW to 88 MW on a continuous basis with SO_2 emissions limited to 14,800 lb/day or 0.89 lb/MMBtu, whichever is more stringent, will not cause or contribute to modeled exceedances of the National Ambient Air Quality Standards (NAAQS) for SO_2, PM_{10}, and NO_2.

Update # 1 showed that Unit 1 could be operated on a cycling basis at an SO_2 emission rate of 1.20 lb/MMBtu without causing or contributing to modeled exceedances of the National Ambient Air Quality Standards (NAAQS) for SO_2, PM_{10}, and NO_2. Therefore, Update #1 also demonstrates that Unit 1 can be operated on a cycling or intermittent basis at 0.89 lb/MMBtu, without causing or contributing to modeled exceedances of the National Ambient Air Quality Standards (NAAQS) for SO_2, PM_{10}, and NO_2.

The net result of Update 1 and Update 2 demonstrate that Unit 1 can be operated at continuous or intermittent loads in the 35 MW to 88 MW range with SO_2 emissions limited to no more than 0.89 lb/MMBtu and 14,800 lb/day without causing or contributing to modeled exceedances of the National Ambient Air Quality Standards (NAAQS) for SO_2, PM_{10}, and NO_2

Table 3-1 AERMOD Modeling Results for SO_2 – Maximum Load
Unit 1 at 100% Load, SO_2 Emission Rate = 0.586 lb/MMBtu

Year	Pollutant	Averaging Period	AERMOD-PRIME	Monitored Background	AERMOD-PRIME + Background *	NAAQS	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
			Predicted Concentrations ($\mu g/m^3$)				X (m)	Y (m)	m	deg	m	m
2000	SO_2	3-hour	437.7	238.4	676.1	1300	322700.9	4298819.5	232.2	333	10.3	39.6
		24-hour	208.2	51.0	259.2	365	322770.8	4298791.5	182.7	349	6.1	39.6
		Annual	25.9	15.7	41.6	80	322880.8	4298542.5	102.7	133	6.7	0.0
2001	SO_2	3-hour	506.0	238.4	744.4	1300	322763.3	4298799.5	192.1	347	6.5	39.6
		24-hour	217.9	51.0	268.9	365	322755.8	4298806.0	200.1	346	6.5	39.6
		Annual	24.2	15.7	39.9	80	322880.8	4298542.5	102.7	133	6.7	0.0
2002	SO_2	3-hour	545.4	238.4	783.8	1300	322700.9	4298819.5	232.2	333	10.3	39.6
		24-hour	204.9	51.0	255.9	365	322770.8	4298791.5	182.7	349	6.1	39.6
		Annual	20.7	15.7	36.4	80	322880.8	4298542.5	102.7	133	6.7	0.0
2003	SO_2	3-hour	361.7	238.4	600.1	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	155.0	51.0	206.0	365	322880.8	4298542.5	102.7	133	6.7	0.0
		Annual	15.7	15.7	31.4	80	322919.7	4298385.0	254.3	153	8.9	0.0
2004	SO_2	3-hour	407.0	238.4	645.4	1300	322700.9	4298819.5	232.2	333	10.3	39.6
		24-hour	197.0	51.0	248.0	365	322880.8	4298542.5	102.7	133	6.7	0.0
		Annual	17.9	15.7	33.6	80	322880.8	4298542.5	102.7	133	6.7	0.0

* SO_2 background concentrations for 24-hour averaging period are less than 51 $\mu g/m^3$ during periods when the highest impacts from Unit 1 are predicted.

Table 3-2 AERMOD Modeling Results for SO_2 – Minimum Load
Unit 1 at 35% Load, SO_2 Emission Rate = 0.89 lb/MMBtu

Year	Pollutant	Averaging Period	AERMOD-PRIME	Monitored Background	AERMOD-PRIME + Background *	NAAQS	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
			Predicted Concentrations ($\mu g/m^3$)				X (m)	Y (m)	m	deg	m	m
2000	SO_2	3-hour	539.3	238.4	777.7	1300	322770.8	4298791.5	182.7	349	6.1	39.6
		24-hour	311.7	51.0	362.7	365	322770.8	4298791.5	182.7	349	6.1	39.6
		Annual	42.1	15.7	57.8	80	322787.7	4298786.0	174.8	354	6.1	39.6
2001	SO_2	3-hour	565.2	238.4	803.6	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	313.0	51.0	364.0	365	322849.3	4298677.0	78.4	34	6.1	0.0
		Annual	48.6	15.7	64.3	80	322770.8	4298791.5	182.7	349	6.1	39.6
2002	SO_2	3-hour	556.8	238.4	795.2	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	311.1	51.0	362.1	365	322787.7	4298786.0	174.8	354	4.6	39.6
		Annual	40.4	15.7	56.1	80	322787.7	4298786.0	174.8	354	4.6	39.6
2003	SO_2	3-hour	548.3	238.4	786.7	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	249.9	51.0	300.9	365	322854.0	4298627.0	51.0	73	5.0	0.0
		Annual	30.9	15.7	46.6	80	322854.0	4298627.0	51.0	73	5.0	0.0
2004	SO_2	3-hour	575.4	238.4	813.8	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	269.1	51.0	320.1	365	322858.6	4298648.5	64.6	56	4.1	0.0
		Annual	36.2	15.7	51.9	80	322854.0	4298627.0	51.0	73	5.0	0.0

* SO_2 background concentrations for 24-hour averaging period are less than 51 $\mu g/m^3$ during periods when the highest impacts from Unit 1 are predicted.

Table 3-3 AERMOD Modeling Results for PM_{10}
Unit 1 at 100% Load, Fugitive Dust Sources Reduced to 20% except Coal Pile

Year	Pollutant	Averaging Period	*AERMOD-PRIME*	*Monitored Background*	*AERMOD-PRIME + Background **	*NAAQS*	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
							X (m)	Y (m)	M	deg	m	m
2000	PM_{10}	24-hour	48.5	45	93.5	150	322810.6	4298329.0	283.1	179	10.6	0.0
		Annual	10.8	21	31.8	50	322910.1	4298434.0	206.7	150	7.7	0.0
2001	PM_{10}	24-hour	55.3	45	100.3	150	322810.6	4298329.0	283.1	179	10.6	0.0
		Annual	12.0	21	33.0	50	322904.4	4298462.5	179.5	146	8.3	0.0
2002	PM_{10}	24-hour	48.3	45	93.3	150	322810.6	4298329.0	283.1	179	10.6	0.0
		Annual	11.1	21	32.1	50	322904.4	4298462.5	179.5	146	8.3	0.0
2003	PM_{10}	24-hour	41.4	45	86.4	150	322810.6	4298329.0	283.1	179	10.6	0.0
		Annual	11.7	21	32.7	50	322810.6	4298329.0	283.1	179	10.6	0.0
2004	PM_{10}	24-hour	40.6	45	85.6	150	322810.6	4298329.0	283.1	179	10.6	0.0
		Annual	10.5	21	31.5	50	322810.6	4298329.0	283.1	179	10.6	0.0

* The highest PM_{10} background air quality concentrations over the past three years (2001-2003) were obtained from the monitors located at 2675 Sherwood Hall Lane or Cob Run, Lee Road. Both monitors are in Fairfax County.

Table 3-4 AERMOD Modeling Results for NOx
Unit 1 at 100% Load, NOx Emission Rate = 0.45 lb/MMBtu

Year	Pollutant	Averaging Period	AERMOD-PRIME	Monitored Background	AERMOD-PRIME + Background *	NAAQS	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
			Predicted Concentrations ($\mu g/m^3$)				X (m)	Y (m)	M	deg	m	m
2000	NO_2	Annual	14.9	48.9	63.8	100	322880.8	4298542.5	102.7	133	6.7	0.0
2001	NO_2	Annual	13.9	48.9	62.8	100	322880.8	4298542.5	102.7	133	6.7	0.0
2002	NO_2	Annual	11.9	48.9	60.8	100	322880.8	4298542.5	102.7	133	6.7	0.0
2003	NO_2	Annual	9.0	48.9	57.9	100	322919.7	4298385.0	254.3	153	8.9	0.0
2004	NO_2	Annual	10.3	48.9	59.2	100	322880.8	4298542.5	102.7	133	6.7	0.0

* NOx concentrations were multiplied by 0.75 to obtain NO2 estimates in accordance with USEPA guidelines.

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#2

BY TELECOPY

December 7, 2005

Robert G. Burnley, Director
Commonwealth of Virginia Department of Environmental Quality
629 East Main Strect
Richmond, Virginia 22319

Virginia Department of Environmental Quality:
Order by Consent Issued to Mirant Potomac River, LLC

Dear Mr. Burnley,

By this letter, Mirant Potomac River, LLC ("Mirant") is providing you (1) a status report of activities undertaken during the period of December 2 – December 7 in furtherance of our efforts to eliminate and prevent the modeled National Ambient Air Quality Standards ("NAAQS") exceedances described in the modeling analysis filed with the Department of Environmental Quality (DEQ) on August 19, 2005, (2) a summary of the results achieved in the recent testing of Trona injection and use of lower sulfur coal at Unit 1 as a means of reducing SO2 emissions, and (3) a proposal for enhanced operation of Unit 1 with reduced SO2 emissions.

Status Report. As described in my letter dated December 1, 2005, to Michael Dowd, on November 23, 2005 Mirant commenced use of lower sulfur coal for operations at Unit 1, while continuing to follow the operational limitations described in our letter to DEQ dated September 20, 2005 related to resumption of operations at Unit 1. From November 23 through 28, 2005 Mirant included a lower sulfur coal at a blend of approximately 33% Colombian coal / 67% Central Appalachian coal. Beginning on December 1, 2005 Mirant used a fuel blend of approximately 67% Colombian coal / 33% Central Appalachian coal. We expect to begin use of 100% Colombian coal as fuel for Unit 1 operations on or around December 8, 2005. Throughout the testing of lower sulfur coal, Mirant has followed the operational limitations described in the September 20, 2005 correspondence. The lower sulfur Colombian coal has a sulfur content of less than 1.0# SO2/mmbtu as compared to current coal, which averages 1.2 # SO2/mmbtu, as more particularly described to you in our letter of November 16, 2005.

Upon completion of the testing of lower sulfur coal, Mirant plans to test the combined benefits of Trona injection, while burning the lower sulfur coal. We anticipate that the combined Trona and coal testing will begin on or around December 14 and will require 2 -3 days to complete.

Trona Test Results. Mirant conducted Trona testing on November 11 - 18, 2005 and November 21 – 22, 2005 in accordance with the Trona Test Plan submitted to DEQ on October 14, 2005. The testing was conducted at a range of operating profiles, from minimum load to full load, and using various rates of Trona injection. The reduction of SO2 from Unit 1 emissions under the various test conditions ranged from 20% to 80%. We believe that the testing indicates that Trona injection can be used to achieve a reduction of SO2 emissions continuously and on a sustainable basis of 60% - 70%. Nonetheless, because these results were achieved over a relatively short period of time, Mirant wishes to monitor and record SO2 emission reductions through Trona injection over a longer period of time to fully support the SO2 reductions achieved.

Lower Sulfur Coal Test Results. Although testing of the use of lower sulfur coal is not completed, preliminary results indicate that SO2 emissions can be reduced by 10% – 25% using coal that has similar properties to the Colombian coal used in the lower sulfur coal testing.

Combined Effects of Trona Injection and Use of Lower Sulfur Coal. Mirant will not have a confirmed assessment of the combined benefits of Trona injection and use of lower sulfur coal until testing of the combined benefits, as described above, has been completed.

Particulate Test Results. Mirant has not yet received the test results for the particulate testing performed by General Electric under baseline conditions and with Trona injection. We expect the results this week and will forward the results to DEQ promptly after receipt.

Proposed Plan for Expanded Operation of Unit 1. As you are aware, in accordance with Mirant's letter of September 20, 2005, we resumed generating electricity on a limited basis with the operation of Unit 1 subject to the operating limitations of (1) a 24-hour SO2 tons-per-day emissions cap of 7.4 tons per calendar day, and (2) no generation between the hours of 10:00 pm and 5:00 am. The typical operating profile of Unit 1 with the above limitations allows for up to 16 hours of generation per calendar day, with up to 8 hours at full capacity (88 MW) and 8 or more hours at minimum capacity (35 MW). With the September 20, 2005, letter, Mirant submitted Update #1 to "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant," which demonstrates that Unit 1 operating in the mode described above results in ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2, and more than ensures protection of human health and the environment surrounding the Power Plant.

Mirant now proposes to operate Unit 1 using Trona injection or lower sulfur coal to manage SO2 emissions, subject to the SO2 emission cap of 7.4 tons per calendar day, but unconstrained as to hours of operation. By separate transmittal, Mirant will send DEQ Update #2 to "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant," which demonstrates that Unit 1 operating at full load 24 hours per day with a 30% reduction in SO2 emissions results in ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2. The corresponding daily SO2 emission cap for this modeled operating scenario would be 10.6 tons per day. Since Unit 1 will not operate at full load every hour of each day, and to simplify and expedite review, Mirant is not proposing to modify the daily SO2 emissions cap at this time even though the daily cap of 7.4 tons/day is more restrictive than the modeling indicates is needed. As a result, Update #2 is very

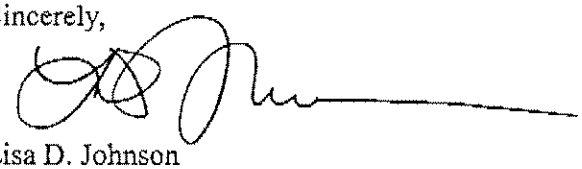
similar to Update #1 – the only differences relate to removing constraints on hours of operation in a 24 hour period and constraints on hours of operation at full load.

Similarly, to expedite review of this proposal, Update #2 uses the same assumption about the plant's contribution to background concentrations of SO2 as was made in Update #1. That is, a background ambient air concentration of 51 $\mu g/m^3$ SO2 was used to calculate total 24 hr SO2 impacts in the modeling. Mirant's future proposals will use a lower, more realistic measure of the plant's contribution to background SO2 concentrations than the value used in Update #1 and Update #2. The background SO2 value to be used for future model runs is 36 $\mu g/m^3$, which was derived by ENSR. For your reference, enclosed is a copy of the memo dated October 24, 2005, from ENSR which was provided to DEQ and EPA, describing the methodology for determining a more realistic value for the plant's contribution to background SO2 concentrations.

Mirant's proposal is to begin operating Unit 1 in the manner described above on or around December 14, 2005, and we ask that you respond to this request by that date. The similarity between the modeling supporting Update #1 and the modeling supporting Update #2, should allow for an expedited review. We request expedited review because there are cold weather impacts related to the hours-constrained operation of Unit 1 that should be addressed promptly to support the contribution the Unit is now able to make to the electric system reliability. The plant uses steam extracted from the turbines for building heating. Under the current cold weather conditions, equipment in the plant is in danger of freezing during the eight hour period each night when the entire station is shutdown, especially the four units which have not run since August. Sustained temperatures below freezing can cause damage to the equipment as well as extend the start-up times for both daily resumption of power at Unit 1 and extraordinary resumption of power during an emergency. Allowing Mirant to operate Unit 1 without constraints on hours of operation (but with SO2 emission constraints) will allow Mirant to keep Unit 1 and the plant warm.

Thank you for your attention to these matters. Please let us know if you need any further information.

Sincerely,



Lisa D. Johnson
President, Mirant Potomac River, LLC

cc: Deborah Jennings, Esq.

#3

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BY TELECOPY

Michael G. Dowd
Commonwealth of Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 22319

November 16, 2005

Mirant Potomac River: Use of Lower Sulfur Coal

Dear Mr. Dowd:

As you are aware, in accordance with its letter of September 20, 2005, Mirant Potomac River, LLC ("Mirant") resumed generating electricity on a limited basis with the operation of Unit 1 subject to the operating limitations of (1) a 24-hour SO2 tons-per-day emissions cap of 7.4 tons per calendar day, and (2) no generation between the hours of 10:00 pm and 5:00 am. The typical operating profile of Unit 1 with the above limitations allows for up to 16 hours of generation per calendar day, with up to 8 hours at full capacity (88 MW) and 8 or more hours at minimum capacity (35 MW).

As you also know, Mirant is currently testing trona to document the effects of this chemical's reduction capability on sulfur emissions.

Mirant wishes to inform you that upon completion of the trona testing, Mirant will include in its operation of Unit 1 the use of a lower sulfur coal which has a sulfur content of less than 1.0# SO2/mmbtu as compared to current coal, which averages 1.2 # SO2/mmbtu. The new coal's ash content is consistent with the coal typically used at the plant, however the product has somewhat higher moisture, as well as lower heating value and ash fusion temperature relative to current coal. These different characteristics warrant a careful evaluation under actual operating conditions so that Mirant can fully appreciate any operating ramifications.

Mirant will operate Unit # 1 with lower sulfur coal under the limitations described in the September 20 letter and summarized above. Operating Unit 1 within these limitations results in modeled ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2. Moreover, the SO2 daily emission cap will continue to limit operations such that, regardless of the performance

of the lower sulfur coal, SO2 emissions will not cause exceedances of the ambient air quality standards. Operation with the lower sulfur coal on Unit 1 will allow Mirant to ascertain the actual SO2 reduction that can be achieved with this fuel type\blend while continuing to provide for ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2. The coal evaluation will take approximately 1 to 2 weeks to complete.

Upon completion of the lower sulfur coal evaluation, Mirant plans to test the combined benefits of trona injection while burning the lower sulfur coal. The trona\lower sulfur coal test is expected to last 2-3 days.

Mirant continues to work diligently towards the goal of resolving the ambient air quality issues in the vicinity of the Potomac River power plant, returning the plant to full service and restoring electric reliability in the region to acceptable levels. We remain committed to working cooperatively with DEQ to resolve this matter.

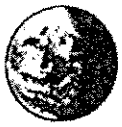
Please call me with any questions or comments.

Sincerely,

Lisa D. Johnson
President, Mirant Potomac River, LLC

cc: Deborah Jennings, Esq

#4



"Stumpf, Mike A." <mike.stumpf@mirant.com>
11/22/2005 05:16 PM

To "erica.bannerman@alexandriava.gov" <'erica.bannerman@alexandriava.gov'>, "debatts@deq.virginia.gov" <'debatts@deq.virginia.gov'>, "Ulman, Ronald R." <ronald.ulman@mirant.com>, "Rogan, Byers" <byers.rogan@mirant.com>, "Matthews, David G." <david.matthews@mirant.com>, "Knight, Debra L."
cc
bcc
Subject Potomac River Testing Status - Update

POTOMAC RIVER TEST PLAN UPDATED: Tuesday, 11/2 2 /05 5:15 PM

Calendar Day	Test Day	Est. Start	Activity
Fri. 11/11	1	2:00 pm	Gas RATA. COMPLETE
Sat. 11/12	2	2:00 pm	Method 201A/202 Particulate test. COMPLETE
Sun. 11/13	3	8:00 am	MID-load trona test. Incomplete set of data - feeder problems.
Mon. 11/14	4	9:30 am	LOW-load trona test. COMPLETE.
Tue. 11/15 identified.	5	12:00 pm	No tests completed. Injector nozzle orientation problem
Wed. 11/16	6	8:00 am	High-load trona test. COMPLETE.
Thu. 11/17 with trona (1 run compl)	7	8:00 am	Low-load repeats, then High-Load Method 201A/202 PM test
Fri. 11/18 with trona	8	1:00 pm	Finished last 2 runs of High-Load Method 201A/202 PM tests
Mon. 11/21 1900) w/trona	9	12:00 pm	Completed 35 mw & 65 mw & commencing 90 mws (1700-
Tue. 11/22 w/trona	10	3:00 pm	Completed 65 mw & commencing 90 mws (1800-2000 hrs)

Trona testing will be complete tonight.

#5

"Dowd,Michael"
<mgdowd@deq.virginia.gov>
11/08/2005 08:25 AM

To <William.skrabak@alexandriava.gov>, <lalit.sharma@alexandriava.gov>
cc
bcc
Subject FW: Mirant Potomac River Unit 1 Test Protocols and Schedule

Michael G. Dowd
Air Enforcement Manager
Virginia Department of Environmental Quality
629 E. Main Street
Richmond, VA 23240-0009
Phone: 804.698.4284
Fax: 804.698.4277
mgdowd@deq.virginia.gov

-----Original Message-----
From: Adams,Frank
Sent: Tuesday, November 08, 2005 7:12 AM
To: 'Cramer, David S.'
Cc: Batts,Dennis; Hartshorn,David; Dowd,Michael; Steers,Jeffery
Subject: RE: Mirant Potomac River Unit 1 Test Protocols and Schedule

David,

DEQ staff has reviewed the testing protocols for the proposed testing on Unit #1. With regards to the boiler load rate during the RATA, DEQ staff concur that the provisions of §6.5.2.1 of 40 CFR 75, Appendix A, allow the RATA to be performed at the most frequent load demonstrated during the previous 4 quarters. The remaining information, presented in the protocols, appears to be complete and indicates that testing will be performed in accordance with EPA reference test methods. Therefore, this email shall serve as notice that DEQ has approved the test protocols and Mirant is authorized to conduct the testing as proposed.

DEQ staff from the Northern Virginia Regional Office (NVRO) will be on-site to observe the emissions testing and boiler operating parameters. DEQ staff must be notified, in advance, of any scheduling changes to the testing protocol. Your point of contact for this matter is Dennis Batts at (703) 583-3891, or Dave Hartshorn at (703) 583-3895.

Should you have question concerning this approval, please do not hesitate to contact my office.

Frank Adams
Manager, Office of Air Compliance
VA. DEQ
P.O. Box 10009
Richmond, VA 23240
(804) 698-4403-voice
(804) 698-4510-fax
fhadams@deq.virginia.gov

#6

Lalit Sharma/Alex
11/09/2005 12:39 PM

To mgdowd@deq.virginia.gov

cc klmcbee@deq.virginia.gov, jasteers@deq.virginia.gov, rgburnley@deq.virginia.gov, Rich Baier/Alex@Alex, Ignacio Pessoa/Alex@Alex, William Skrabak/Alex@Alex, Erica Bannerman/Alex@ALEX, Jim Hartmann/Alex@Alex

Subject Mirant-Potomac Unit 1 test protocols - City Concerns

Mike:

The City has reviewed the copy of Mirant's revised proposal and has several still unaddressed concerns. Following are potential problems with the sequencing and sufficiency of Mirant's RATA and trona testing procedures. These problems may have
significant bearing on how well we can answer the questions of 1) how PM10 emission rates increase with the use of trona, 2) the effectiveness of the ESPs in controlling PM10 for baseline and trona injection and for the full load of oeprational conditions, and 3) quantifying the baseline PM10 emission rates for the current operational scenario for Unit 1.

The planned testing procedures should be remedied as described here:

1) the sequence of the test plan should be changed so that the flowrate RATA is performed before the trona and baseline PM10 and SO2 tests. What if the flowrate RATA, planned now to occur after all of the other tests, shows a poor result? That would then require the complete re-testing of baseline and trona injection conditions, which will be flowrate-based. While Mirant states that the flowrate RATA occurs from the same test ports as the Method 201A and 202 test ports and therefore cannot occur simultaneously, there is no apparent reason why Day's 2 current test of baseline PM10 cannot be delayed until after the flowrate RATA occurs;

2) it is not clear why Mirant is performing RATA tests under low load conditions only, as the test plan matrix describes. While the SO2 RATA form does show a load range, Mirant's cover letter contradicts that by stating that only a low load RATA will be performed. SO2, NOx, CO2 and flowrate RATA's should also be performed under mid and full load instead of only under low load as Mirant proposes;

3) where are the DEQ-required protocol forms for flowrate RATA (and for NO2 and CO2)? If this form was provided to DEQ, the City asks to review it. If not provided, Mirant should submit that form;

4) why does Mirant propose deviating from the Reference Method 6C by measuring from only two ports versus the required three for the SO2 RATA? It is not clear why this is necessary now when this is not Mirant's standard RATA procedure (the accompanying "Annual CEM RATA Test Protocol" does not include any mention of this deviation from the reference method and states that three test ports will be used);

5) Baseline PM10 emissions tests should occur under the range of potential operating loads. Therefore, the proposed baseline PM10 test (currently planned for Day 2, but would be shifted to Day 3 to allow pre-test flowrate RATA) must be expanded to include min and mid-load PM10 using methods 201A and 202 testing, at points upstream and downstream of the ESP. Particulate emissions are load-sensitive; lower loads are more likely to be characterized by conditions of incomplete combustion, which in turn promotes higher particulate emission rates. As you know that the current unit 1 operation scenario and potentially future operatioins may include operation of the boiler at loads other than full load and with the potential of increased particulate emissions because of use of Trona, it is not sufficient to measure PM10 emission rates only under full load conditions and only at the ESP outlet;

6) Trona injection's effect on PM10 emissions should also be evaluated under the range of potential oeprating loads. Therefore, testing plans (currently planned for Day 3 and 4 of the test matrix) should be expanded to include PM10 testing at min and mid loads, instead of testing trona's impact on PM110 for max load conditions only as currently planned;

7) All testing using Methods 201A and 202 to determine PM10 emissions should occur at points both upstream and downstream of the ESP, instead of only at the downstream end as Mirant proposes. These data are necessary to determine the efficiency of the ESPs to control PM10. Mirant's test plan for trona includes pre-ESP and post-ESP testing for SO2 for the purposes of "evaluating trona distribution and performance." However, as equally important is the need to test pre-ESP and post-ESP levels of PM10 during the trona tests. It might be important to note that the only apparent means of monitoring the ESP's operational capability to date has been through opacity monitoring. However, a lack or presence of opacity in the gas stream provides no basis upon which to make a determination of this unit's control efficiency within the ranges that are important to this analysis.

8) Mirant should provide more detail to support the two statements made within the footnotes of it test plan matrix: a) "the test order may change depending on the initial test results," and b) "system testing may also be conducted between Day 1 and Day 2." What test results does Mirant anticipate that would warrant changing the test order, and how would the test order change? What is the nature of the system testing that may be conducted between Days 1 and 2?

9) It is not clear that temperature will be monitored and reported for baseline and trona injection conditions for all three load conditions. If not, this parameter should be measured and reported. Trona's reaction with SO2 may affect the temperature of the flue gas.

The results of these planned tests will in part supply the data that the City requested of DEQ on September 30, for the purpose of determining whether the Unit 1 operational scenario is a compliance scenario. However, DEQ should let the City know the status of the response to that data

request, and if DEQ intends to respond to the City's September 30th request after these tests are complete, it should let the City know when to expect that full response.

Thank you very much.

Lalit Sharma, P.E.
Division of Environmental Quality
Transportation and Environmental Services
City of Alexandria
Phone: 703-519-3400 X-164
Fax: 703-519-5941

#7

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
www.deq.virginia.gov

W. Taylor Murphy, Jr.
Secretary of Natural Resources

Robert G. Burnley
Director

(804) 698-4000
1-800-592-5482

October 27, 2005

Ms. Lisa Johnson, President
Mirant Potomac River, LLC
8711 Westphalia Road
Upper Marlboro, MD 20774

Dear Ms. Johnson:

This letter is in response to Mirant's proposal dated October 14, 2005, for the Trona injection testing on Unit 1 of the Potomac River Power Generating Station (PRPGS).

The proposal adequately describes the storage, handling and injection system associated with Trona. For the purposes of this trial, it appears that PRPGS has taken reasonable precautions to prevent fugitive Trona emissions from becoming airborne.

However, the purpose of this trial is to determine the effectiveness of Trona for SO2 reduction and to determine the impact of PRPGS' emissions on National Ambient Air Quality Standards (NAAQS). Although the concept of SO2 reductions with Trona shows promise, there is a potential for increased particulate emissions as well.

DEQ must ensure that all emission testing and data collection for future modeling accurately reflect emissions from the PRPGS facility. Therefore, all testing must be performed in accordance with approved EPA reference methods and observed by DEQ staff. For this reason the report of stack particulate emissions testing conducted in late September 2005, can not be accepted as a baseline for particulate emissions. Moreover, total filterable particulate (PM) is no longer a NAAQS standard.

To demonstrate a particulate baseline and any emissions increase from Trona injection, PRPGS must conduct PM10 particulate emission testing using either EPA Reference Methods 201 or 201a. This testing must be done in conjunction with condensable particulate emissions testing using EPA Reference Method 202. One set of tests shall be performed without Trona and a second set of tests shall be performed once the maximum SO2 reduction rate has been established.

With regards to SO2 reductions, DEQ has concerns with the relative accuracy of the SO2 CEMs. Since EPA retains authority of the Title IV Acid Rain Program, audit results for SO2 CEMs are reported directly to EPA. DEQ has no data to document whether the SO2 CEM is performing within QA/QC specifications established in 40 CFR 75. DEQ, therefore, requires PRPGS to demonstrate the relative accuracy of the SO2 CEM by either performing an EPA Reference Method 6c test or performing the Relative Accuracy Test Audit (RATA). This testing may be performed in conjunction with the Trona testing.

To reduce the possibility of errors during stack emissions testing, DEQ has developed a Stack Test Protocol Form. This form requires information related to stack dimensions, sampling times, parametric monitoring and the identification of any deviations from approved EPA test methods. A copy of this form is attached to this letter or, if you prefer, an electronic version can be found on the DEQ website at http://www.deq.virginia.gov/air/justforms.html. DEQ will not authorize any testing until a completed version of the protocol is returned and approved by staff.

DEQ remains committed to protecting the health and welfare of the citizens of the Commonwealth. DEQ believes that the requirements outlined in this letter must be met to ensure this commitment is met. Should you have any questions concerning this matter, please call me at (804) 698-4284.

Sincerely,

Michael G. Dowd
Air Enforcement Manager

Attachment

CC: Jeff Steers
Amy Owens
Frank Adams
Terry Darton
Ken McBee
Deborah Jennings

#8

DEPARTMENT OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES
P. O. Box 178 - City Hall
Alexandria, Virginia 22313

alexandriava.gov

October 24, 2005

Robert Burnley, Director
Virginia Department of Environmental Quality
629 E. Main Street
Richmond, VA 23240-0009

Re: Trona Application Testing at Potomac River Generating Station

Dear Mr. Burnley:

We thank Virginia Department of Environmental Quality (VADEQ) for sharing Mirant's trona testing proposal package with the City of Alexandria. We have reviewed the limited information in the package and outlined our concerns with regard to that testing plan here.

Resolution of inconsistencies of Baseline or Unit 1 Operational Scenarios and lack of information to simulate the results independently

Mirant implies in its letter to Mr. Burnley, dated October 14, 2005 that the Unit 1 operational scenario is one that protects ambient air quality standards. There are however unresolved issues with respect to both baseline and Unit 1 scenarios.

In a letter dated September 28, 2005 the City relayed to VADEQ our very specific questions and concerns regarding several modeling assumptions within the baseline scenario, including downwash dimensions that underestimate the effect of downwash, the definition of property line receptors on public lands, and untested emission inputs for the coal and ash yard. Mirant not only continues to rely on these unresolved baseline data to show compliance for the Unit 1 operational scenario, it adds additional uncertainties to that scenario's ability to protect ambient air quality standards through several unproven inputs (an undocumented reduction in background air quality that results in virtually no margin between impacts and standards, reliance on PM_{10} emission rates and flowrates and stack gas temperature for which no test data have been provided, and a large-scale reduction in coal and ash yard emissions that does not appear supportable). The City is still awaiting VADEQs review and response to the issues raised by the City.

For the purpose of simulating the Unit 1 operational scenario, the City had requested verification of these inputs from Mirant several weeks ago. The City also asked the VADEQ (September 30, L. Sharma of City of Alexandria, to K. McBee, VADEQ via email),

to request Mirant for the same information that City believes VADEQ also needs for a thorough review of Unit 1 scenario. In light of the VADEQ determination (Press release dated October 19, 2005) without having the benefit of requested information to simulate the results, given the already precarious compliance situation, the City is extremely concerned about the level of review being afforded and adequacy of margins of safety provided in the analysis.

Before considering any approvals for further changes to the operations at the Mirant plant, the City requests that VADEQ act now to resolve these differences in baseline scenario assumptions and allow the City to analyze the Unit 1 operational scenario's compliance status itself by requesting that Mirant respond to our September 30th request for data.

Lime Injection and Particulate Matter Testing Proceeded without Notice to VADEQ in April 2005

The City has learned that Mirant tested lime injection on Unit 4 in April, 2005 without any notice to VADEQ of its intent or outlining of procedures to do so. A review of the quarterly report indicates lack of disclosure about the testing, and also indicates exceedance of opacity limits during that time period. The City requests that VADEQ review and investigate fully all aspects of this testing and determine if any violations of regulations or emissions limits took place. The City requests here a complete report of the lime injection testing, including all test data of the Unit 4's electrostatic precipitator performance. This will enable VADEQ and the City to assess Mirant's claims about the ability of ESPs to handle increased particulate loadings. It is important that this be done prior to any approvals of testing using TRONA because there are numerous similarities between the process being proposed and the test that was conducted without notification to and approval of VADEQ.

Request for Testing Schedule of Lower Sulfur Fuel and Non-standard Test Methods for $PM_{2.5}$ and PM_{10}

The City asks that VADEQ ask for a explicit disclosure by Mirant of its plans for testing lower sulfur coal, and for any use of non-standard methodology for monitoring PM_{10} and $PM_{2.5}$. During Public meetings and in a recent inspection, Mirant's staff has indicated plans for using lower sulfur coal. If Mirant's current proposed test schedule includes either of these procedures, Mirant must include a full description within this plan of testing procedures for that fuel and methodology as well.

This Major Contributor to $PM_{2.5}$ Background Levels must Provide Baseline and Proposed PM $_{2.5}$ Emission Levels and Control Capability

As Mirant states in its proposal, albeit without any detailed estimates, and review of trona injection process descriptions shows, trona injection increases $PM_{2.5}$ inlet and outlet loads

through the conversion of SO_2 to sodium sulfates and sulfites. However, in this PM 2.5 nonattainment area, US EPA's proposed $PM_{2.5}$ attainment rule and VADEQ's mandate require the protection,and progress toward attainment, of the $PM_{2.5}$ ambient air quality standard.[1] ***Mirant is currently, at its existing levels, one of the region's largest emitters of this nonattainment pollutant***. However, the testing proposal in its current form does not even include a means to accurately determine the extent by which trona injection will increase PM 2.5 emissions.

Mirant has persistently refused to address its impacts of this nonattainment pollutant on the community; this is not an approach that can be supported by any regulatory interpretation. VADEQ must therefore move to address fully the PRGS's compliance with 9 VAC 5 Chapter 30, "Ambient Air Quality Standards." The City asks VADEQ to define a approach by which it intends to assess the PRGS's compliance with the PM 2.5 AAQS, because, to iterate, as US EPA's proposed $PM_{2.5}$ implementation rule stipulates for this interim period before Virginia defines its own implementation rule, the $PM_{2.5}$ NAAQS must continue to be protected. Currently, VADEQ has not acted to do so.

Mirant has not provided to date any test results by which to determine the full baseline emissions of the PRGS of PM 2.5. Therefore, testing at PRGS must include a determination of the inlet and outlet values of PM 2.5 for both the baseline and proposed conditions. $PM_{2.5}$ emissions must be measured using US EPA Conditional Method 40 that adds a $PM_{2.5}$ cylcone separator, followed by Method 202 to collect condensable materials. $PM_{2.5}$ tests should include pre-ESP and post-ESP test points while trona is injected in order to assess the efficiency of the ESP to control $PM_{2.5}$ for this change in flue gas characteristics.

The City also requests that VADEQ require Mirant to include the test report for Unit 1's precipitator performance that Mirant describes within their letter to you within its trona testing package.

Testing Plan Does Not Constitute a US EPA Reference Testing Protocol

The testing plan that Mirant provides in its package falls far short of a detailed test protocol in which US EPA reference methods are proposed. The results of this emission test will be used by Mirant for the purposes of determining a compliance scenario and its permit limits; therefore, VADEQ should require the same rigor in this test procedure that it does of any other compliance test. Therefore, the City asks that the testing protocol be revised to include these additional items:

1. Identification of the independent testing organization and a statement of their qualifications to provide the services.
2. Exact test dates should be specified, and VADEQ (and the City) should be provided the opportunity to observe the test.

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[1] "Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards," September, 2005, US EPA, 40 CFR Part 51.

3. PM10 testing: US EPA Reference Method 5 may be used as proposed; however, the back half or condensable portion of the sample must be included. The length of the test, number of test points, and test locations and M5 filter temperature must be specified. PM10 tests should include pre-ESP and post-ESP test points while trona is injected in order to assess the efficiency of the ESP to this change in flue gas characteristics.
4. SO_2 testing: Mirant should use US EPA Reference Method 6C to obtain pre- and post-ESP test results; alternately, the coal sulfur content can be sampled at least once during each test hour. Method 6C is preferable to use of the Continuous Emissions Monitoring System for post-ESP because of the concern for collection of trona and scrubbing action on the SO2 probe filter, possibly yielding low SO_2 results.
5. Testing of exhaust flow rates and temperatures: the test protocol must identify the US EPA reference method(s) that Mirant intends to use to measure flue gas temperature and velocity; currently, Mirant relies on values in its analysis of the Unit 1 operational scenario that were derived from conditions at other loads; any demonstration of compliance for this and any other operational scenario must ultimately rely only on tested values at the exact loads for these important parameters. As required by US EPA methods for flow testing, the number and location of traverse points must be specified in the test protocol, along with a discussion of how upstream and downstream flow disturbances will be minimized.
6. Testing of $PM_{2.5}$: To iterate, $PM_{2.5}$ emissions must be measured using US EPA Conditional Method 40 that adds a $PM_{2.5}$ cylcone separator, followed by Method 202 to collect condensable materials. Again, $PM_{2.5}$ tests should include pre-ESP and post-ESP test points while trona is injected in order to assess the efficiency of the ESP to control $PM_{2.5}$ for this change in flue gas characteristics.

Trona Injection is a Physical Change that Likely Triggers Nonattainment New Source Review

Trona injection at PRGS constitutes both a physical change and change in the method of operation at PRGS. PRGS is currently a major source in a nonattainment area for $PM_{2.5}$, and US EPA interim guidance defines the significant emissions rate for $PM_{2.5}$ in a nonattainment area as equal to 15 tons per year. Preliminary calculations of trona's effect indicate that it will increase $PM_{2.5}$ emissions by at least 10%, increasing the facility's emissions of this pollutant by approximately 50 to 100 tons per year. Therefore, application of trona meets all of the criteria for New Source Review for $PM_{2.5}$.

Accordingly, Mirant may have to meet the requirements of NSR in a nonattainment area, including applying Lowest Achievable Emission Rate for this pollutant, providing offsets to the proposed emission increases and a demonstration of its ability to comply with all National Ambient Air Quality Standards, including that for $PM_{2.5}$. All elements of this NSR application would be subject to US EPA approval. The City therefore requests that Mirant use the results of this test to prepare a full regulatory applicability assessment for

submittal to VADEQ of its proposal to increase $PM_{2.5}$ and PM_{10} emissions through its use of trona injection.

Increased Truck Traffic will Exacerbate Existing Violations of PM10 at Offsite Locations

Using stochiometric relationships of trona conversion in the flue gas stream, it appears that trona will increase solid waste loads by approximately 50%. Traffic of trucks that haul this solid waste from the site will increase proportionally. However, the City's ambient air quality analysis shows that many receptors at the facility's southwest fence line and at many other offsite locations show violations of the PM_{10} ambient air quality standards with the ***current levels*** of truck traffic. Inspection of the contributions to impacts where these violations occur show that truck traffic at its ***current levels*** is the major contributor. Mirant must now provide an update to its coal and ash yard impact analysis that demonstrates the means by which it proposes to increase truck traffic while protecting the AAQS at these fence line and offsite receptors.

Conclusion

As you can see, Mr. Burnley, underlying our concerns is a general uneasiness surrounding Mirant's actions in which it moves forward unilaterally with operational changes at PRGS before any of the assumptions and procedures have been verified and approved by your agency. We request that above issues be fully addressed by VADEQ and Mirant before proceeding with any approvals for trona testing or changes to operations. We thank you for the opportunity to comment on this preliminary test proposal, and look forward to review of a fuller version that responds to our concerns outlined here.

Sincerely,

Richard Baier, P.E.,
Director, T&ES, City of Alexandria

cc: Jim Hartmann, City Manager, City of Alexandria
Ignacio Pessoa, City Attorney, City of Alexandria
Michael Dowd, Air Enforcement Manager, VADEQ
Kenneth L. McBee, VADEQ
Jeffery Steers, NVRO VADEQ

#9

Mirant Mid-Atlantic, LLC
8711 Westphalia Road, Upper Marlboro, Maryland 20774
T 301 669 8113 F 301 669 8002

BY TELECOPY

Robert G. Burnley, Director
Commonwealth of Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 22319

October 14, 2005

MIRANT

Mirant Potomac River: Proposal to Test Trona on Unit 1

Dear Mr. Burnley,

Mirant Potomac River, LLC ("Mirant") proposes to test a promising boiler SO2 control technology, trona injection, on Unit 1 of the Potomac River power plant and submits this package to the Virginia Department of Environmental Quality in furtherance thereof. Enclosed with this letter are:

- Description of trona, and the planned transportation, storage and injection system;
- Potomac River trona test plan; and
- Material Safety Data Sheet for trona

As you are aware, in accordance with its letter of September 20, 2005, Mirant resumed generating electricity on a limited basis with the operation of Unit 1 subject to the operating limitations of (1) a 24-hour SO2 tons-per-day emissions cap of 7.4 tons per calendar day, and (2) no generation between the hours of 10:00 pm and 5:00 am. The typical operating profile of Unit 1 with the above limitations allows for up to 16 hours of generation per calendar day, with up to 8 hours at full capacity (88 MW) and 8 or more hours at minimum capacity (35 MW). With the September 20, 2005, letter, Mirant submitted Update #1 to "A Dispersion Modeling Analysis of Downwash from Mirant's Potomac River Power Plant," which demonstrates that Unit 1 operating in the mode described above results in ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2, PM10, and NO2, and ensures protection of human health and the environment surrounding the power plant.

The Potomac River power plant is unique among the power plants operated by affiliates of Mirant in that it uses both hot and cold electrostatic precipitators. Therefore, testing trona at the Potomac River power plant is critical for projecting both the SO2 reductions as well as the precipitator performance that can be achieved using trona injection at this plant. Mirant proposes to conduct trona testing at Unit 1, operating the Unit under the limitations described in the September 20 letter and summarized above. Operating Unit 1 with such limitations results in modeled ambient air concentrations that are better than the

National Ambient Air Quality Standards for SO2, PM10, and NO2; accordingly, no modeling is necessary to support this proposal because the trona injection will reduce SO2 emissions and result in even better modeled ambient air quality for SO2. Moreover, the SO2 daily emission cap will continue to limit operations such that, regardless of the trona performance, SO2 emissions will not cause exceedances of the ambient air quality standards. Trona testing at Unit 1 will allow Mirant to ascertain the actual SO2 reduction that can be achieved with trona injection while continuing to provide for ambient air concentrations that are better than the National Ambient Air Quality Standards for SO2.

Mirant tested Unit 1 precipitator performance at the end of September 2005 to reconfirm precipitator condition and capacity. The test demonstrates that the equipment is in good operating condition and that the built-in equipment margins are large. The test results show that stack particulate emissions are 92% below those allowed under the state operating permit for the power plant. Given these results, we are confident the trona testing will have no material adverse impact on particulate matter emissions. In addition, during the trona testing on Unit 1 Mirant will conduct another EPA Method 5 particulate test (40 CFR 60 Appendix A) while the Unit is at full load and the trona injection system is in service.

We respectfully request that you review and respond to this proposal in accordance with our discussions with your staff regarding timing and protocol. However, given that our proposal is for testing on Unit 1 which requires no additional modeling, the review should be less intensive and we therefore ask that DEQ expedite the review and complete it in less than the two-week period discussed. We are enthusiastic about trona's ability to reduce SO2 emissions and look forward to sharing the test results with you, as well as proposing appropriate next-steps based on such results.

Mirant continues to work diligently towards the goal of resolving the ambient air quality issues in the vicinity of the Potomac River power plant, returning the plant to full service and restoring electric reliability in the region to acceptable levels. We remain committed to working cooperatively with DEQ and appreciate your support of the testing schedule so that we can continue to make progress toward resolution of this matter.

Please call me with any questions or comments.

Sincerely,

Lisa D. Johnson
President, Mirant Potomac River, LLC

cc: Deborah Jennings, Esq

System Description
Of the Potomac River Trona System
Transportation, Storage, and Injection Equipment

October 14, 2005

General:

Trona's chemical name is sodium sesquicarbonate (NA_2CO_3•NAHCO•$2H_2O$), which is chemically similar to baking soda (sodium bicarbonate), and is the raw material for soda ash. Soda ash is a versatile chemical used to make glass, paper, laundry detergents, and many other products in every day use. Soda ash is also used as a raw material in the manufacturing of other chemicals, including sodium bicarbonate (baking soda) and sodium phosphates (detergents).

Trona is a mineral. This mineral is found in large quantities in the United States, Mexico, Africa, Turkey, and China. The largest area in the United States that trona is mined is in Wyoming's Sweetwater County. Trona was discovered in Sweetwater County in 1938 during oil and gas explorations. The first mine shaft was excavated in 1946, and commercial production began in 1948. Up until that time, all soda ash in the United States was produced synthetically (chemically). Over 15 million tons of trona and over 8 million tons of soda ash are produced each year.

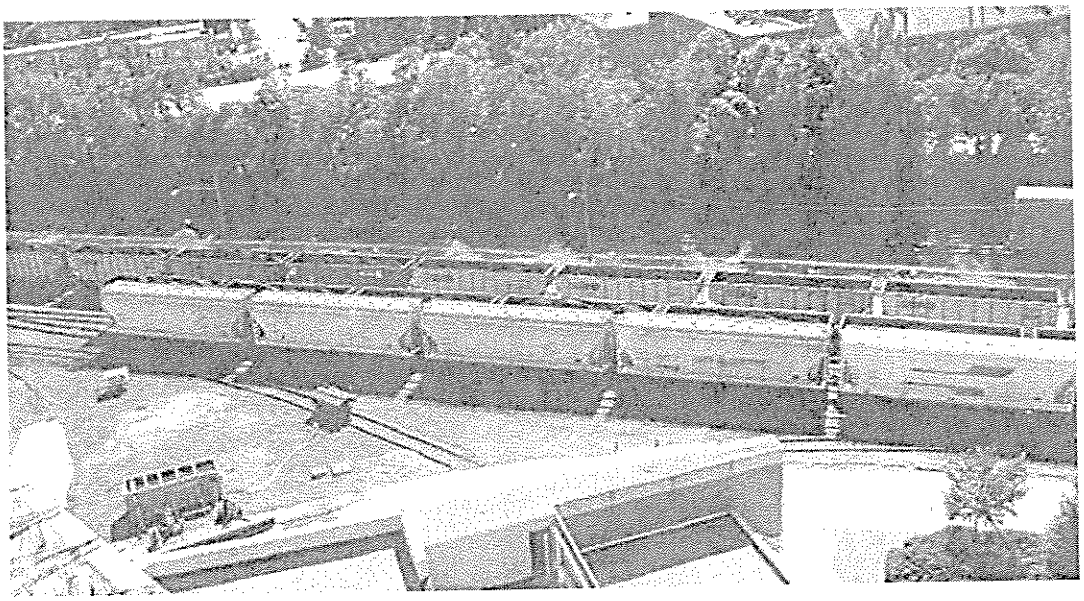
Over 90% of the soda ash produced in the United States and 15% of the World's supply is natural soda ash from Sweetwater County.

Trona is handled as a dry sorbent that has been mechanically refined to a powder with an average particle size of 28 microns (μm) in diameter. It has the appearance of a fine white powder.

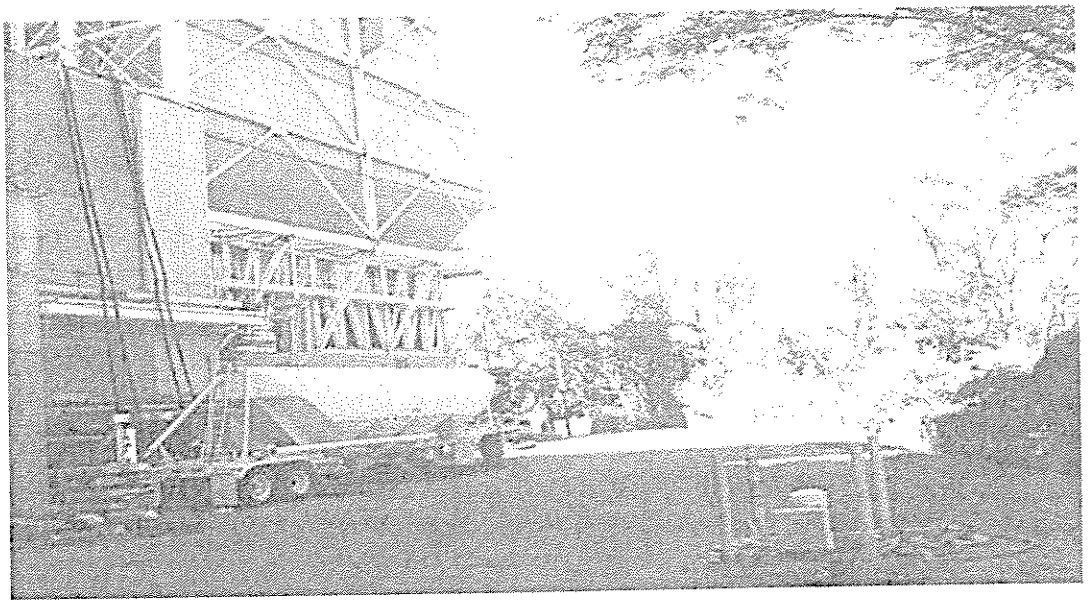
The Material Safety Data Sheet for trona is provided separately. In summary, trona is considered to be a safe chemical. It is not hazardous, does not have an odor, is stable, and is neither volatile nor reactive. It is alkaline with a PH of 10 however it does not cause chemical burns. Since trona is a fine powder, generally accepted practices in handling dusty material as well as prevention measures for ingestion and/or immersion need to be used.

Trona Transportation and Storage:

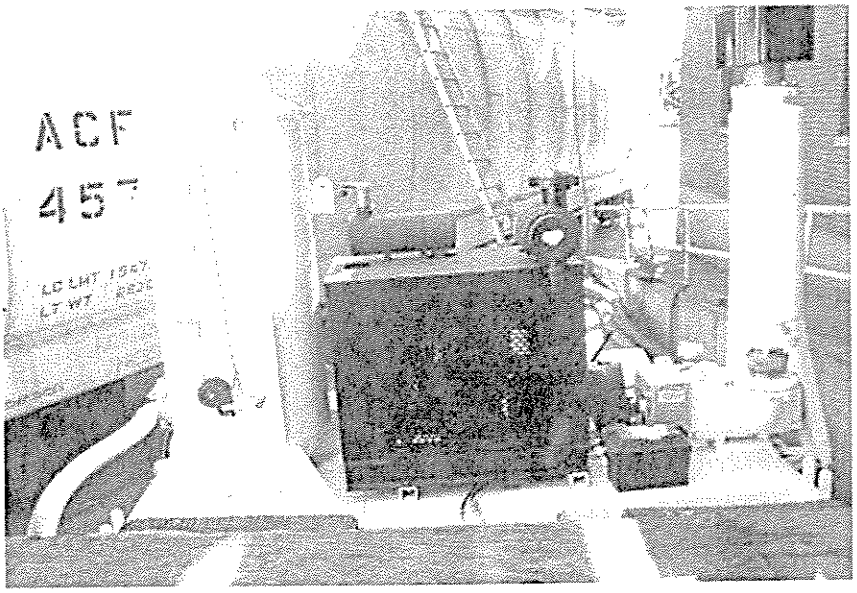
Trona will be transported to the site by enclosed 100-ton railcars. In order to insure a continuous supply of trona, multiple rail cars are required to be staged on-site since the rail transportation from Wyoming takes 2-3 weeks. The trona delivery schedule will follow the same time-of-day restrictions as presently used for coal delivery. Most future deliveries will be by rail cars. Depending on the unit load and SO_2 removal rates, trona consumption is expected to be in the range of 48 to 96 tons per day.



Five trona rail cars staged at Potomac River station.

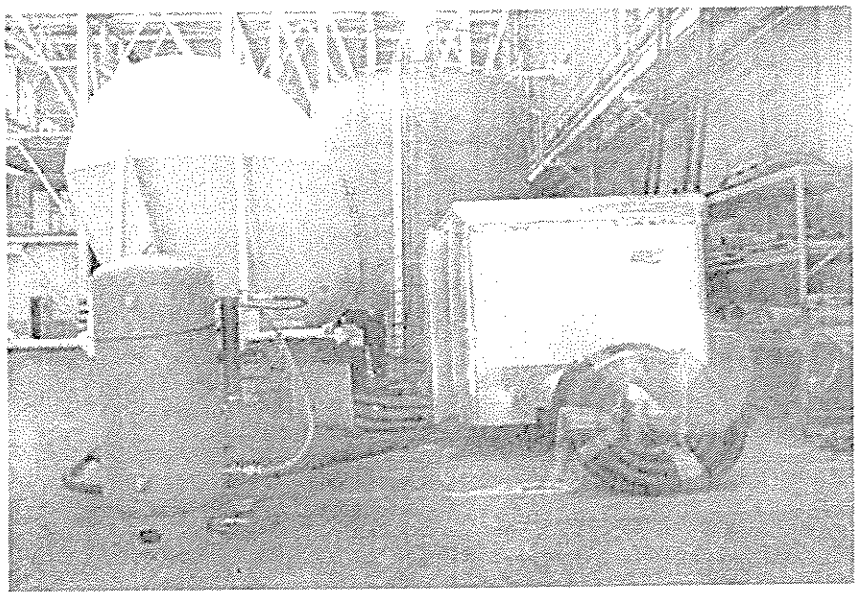


Trona will be pneumatically off loaded from an enclosed rail car to an enclosed 35 ton trona feed trailer on east side of # 4 precipitator.

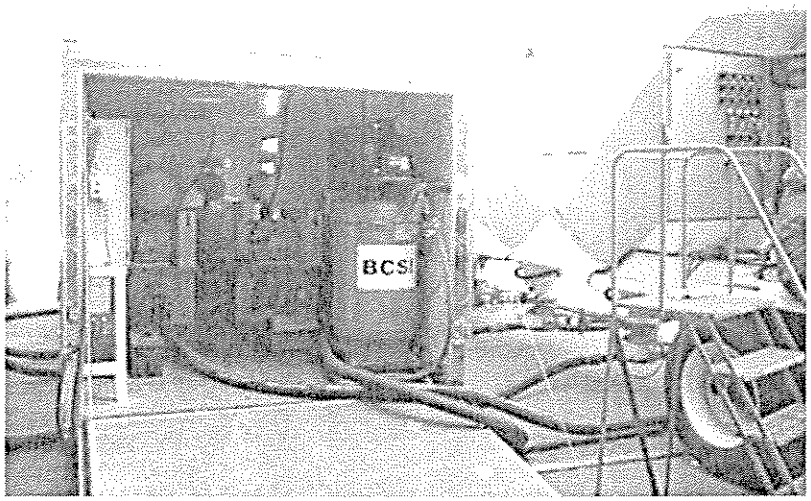


A temporary diesel powered blower will be used for unloading rail cars of trona to the feed trailer.

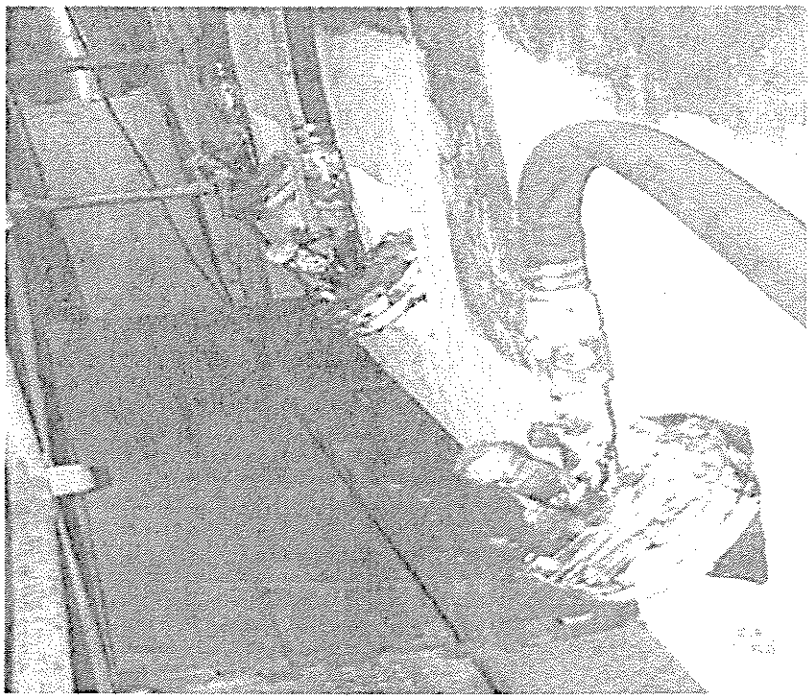
The enclosed trona feed trailer serves as the temporary on site storage facility for the trona injection system near the blower trailer. The feed trailer exhaust vent is equipped with a 99.95% efficient baghouse system. The trona feed trailer will need to be loaded every 5 to 10 hours depending on the trona injection rate. The feed trailer is equipped with four underside discharge valves. Each discharge value is equipped with a variable-speed rotary feeder that has a feed range of 0-4.0 tons per hour. These rotary feeders will be used to regulate the trona injection rate to the unit.



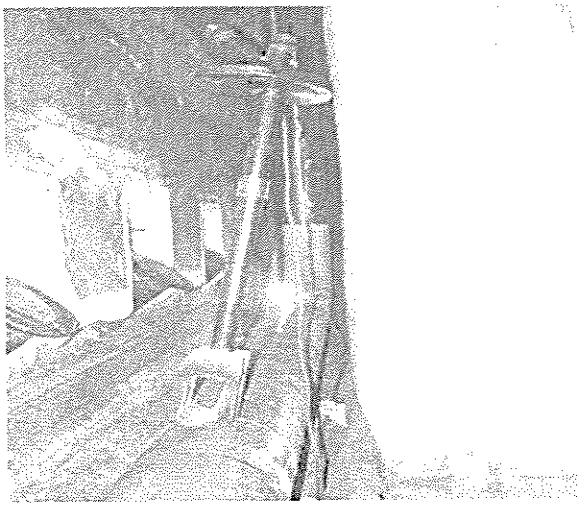
The blower trailer next to the feed trailer has a set of four electric motor driven blowers that will convey trona pneumatically from the feed trailer to eight injection ports at the boiler's economizer outlet duct.



The portable trailer containing the four electric motor powered blowers is staged next to the feed trailer. Trona is transported to the unit injectors with flexible rubber hoses.

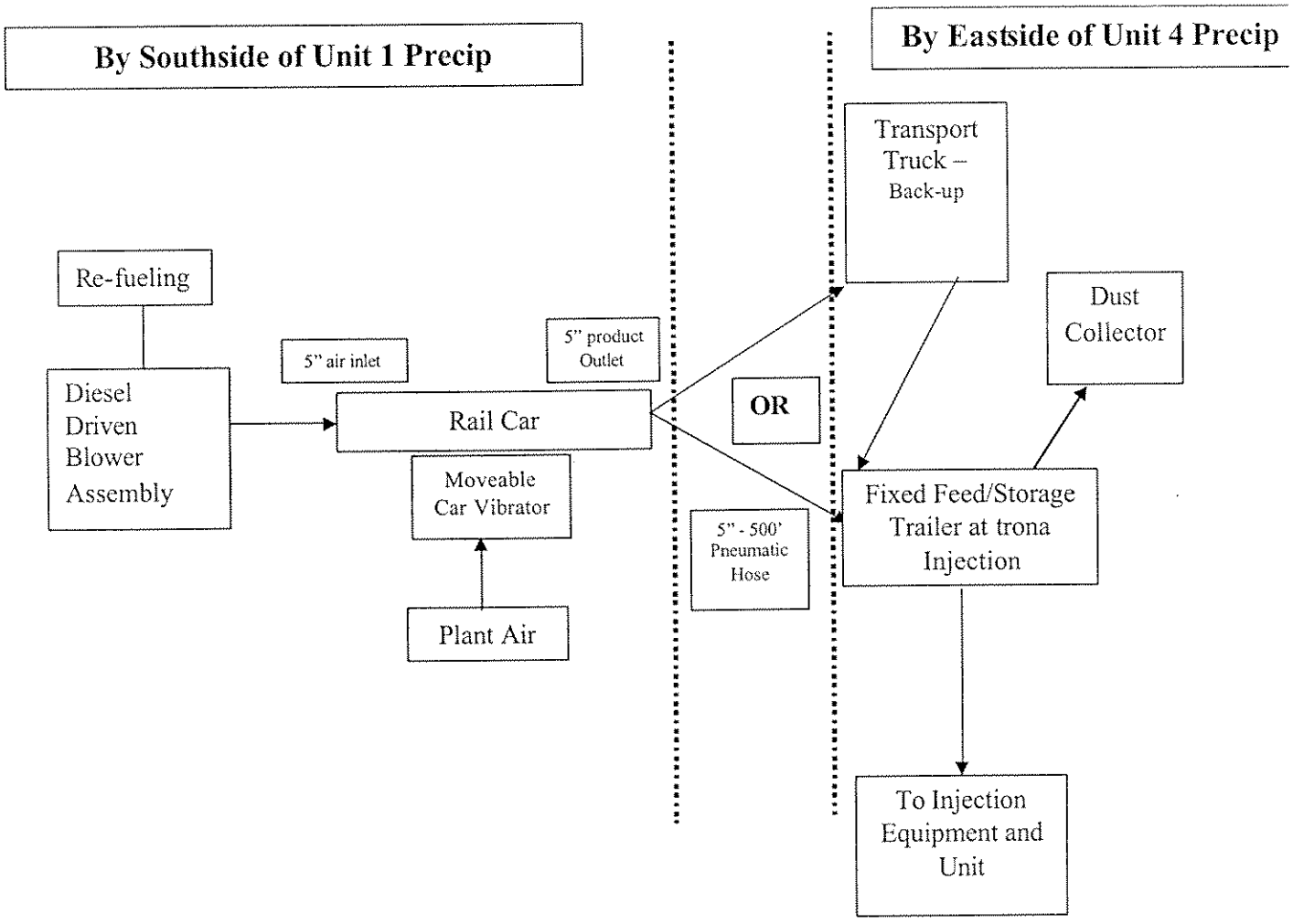


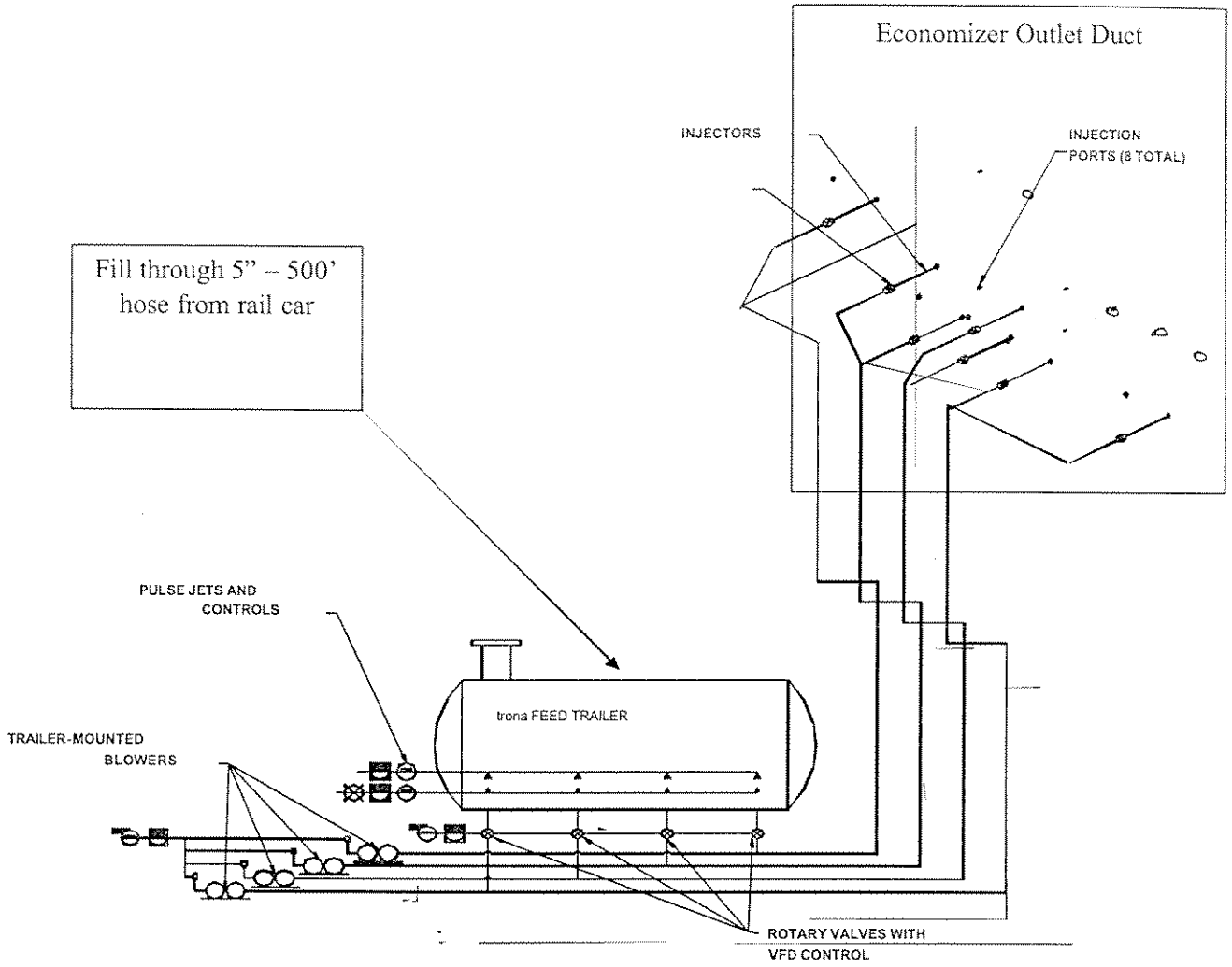
Injection ports and hoses that will supply trona from the blowers to the unit.



An injector that is inserted in the economizer outlet duct.

A detailed schematic of the system is shown below and on the next page





Since trona is not considered a hazardous substance under EPA's SARA or CERCLA rules, no special handling procedures are necessary other than material handling best management practices.

Trona Injection System:

The chemical mechanism that trona uses to reduce SO_2 from power plants exhaust gas is relatively straight forward. When trona is injected into boiler exhaust gases that are above 275°F, it is rapidly calcined to sodium carbonate. This "popcorn-like" decomposition creates a large and reactive surface by bringing unreacted sodium carbonate to the particle surface for acid neutralization. The by-products of the reactions are sodium salts. For example the SO_2 chemistry is:

1. $2(Na_2CO_3 + NaHCO_3 + 2H_2O) + 3SO_2$ yields $3Na_2SO_3 + 4CO_2 + 5H_2O$
2. $3Na_2SO_3 + 1.5O_2$ yields $3Na_2SO_4$

After the surface of the sodium carbonate has reacted with SO_2 to form sodium sulfite, or sulfate, the reaction slows due to pore blockage. In order for the reaction to continue, the sorbent particle must decompose further. This decomposition evolves as H_2O and CO_2 vaporize into the surrounding atmosphere, creating a network of void spaces throughout the particle. This process exposes fresh reactive sorbent and allows SO_2 once again to diffuse into the particle interior. This increase in surface area "popcorn effect" is on the order of 5 to 20 times the original surface area. The SO_2 removal process is completed when the particulate sodium sulfite or sulfate is removed from the exhaust gas by the particulate control device, which are the electrostatic precipitators (ESPs) on this unit.

The rates of decomposition and subsequent sulfation of a sodium compound particle are a function of gas temperature, rate of heat transfer to the particles, flue gas H_2O and CO_2 partial pressure, and the effects of other flue gas components present. In a trona injection system additional parameters and physical constraints will also affect overall sorbent effectiveness and utilization. These include sorbent injection rate, normalized stoichiometric ratio between the sorbent and inlet SO_2 concentration, sorbent particle size, sorbent residence time in the gas stream, sorbent penetration and mixing in the gas stream, and the particulate control device effectiveness.

Trona will first be injected into Potomac River Unit 1's economizer outlet duct (elevation 92 feet). The temperatures of the exhaust gas at the economizer outlet averages 550^0 F, well within the temperature window (275 - 894°F) required for the trona to react with SO_2. The relatively high temperature at the economizer outlet promotes the trona SO_2 reaction and thereby increases the overall SO_2 removal efficiency. Eight injectors, four on each side of the economizer outlet duct, will be used to inject up to a total of 4 tons per hour of trona. Four variable-speed rotary valves located at the feed trailer control the trona feed rate. Trona will be injected at a 45-degree angle into the economizer outlet duct to promote turbulent mixing of trona into the gas stream. Detailed computational fluid dynamic modeling was used to determine the optimal number and location of trona injection points at the economizer outlet and the optimum injector design.

Trona removes SO_2 by converting it into particulate sodium sulfite or sulfate. This reaction will take place primarily between the economizer and the hot side ESP. Any carry over of trona from the hot side ESP will allow additional SO2 removal to take place between the hot side ESP and the air heaters. Exhaust gas temperature after the air heaters are nominally too low for additional SO_2 removal to occur. The particulate sodium sulfite or sulfate, along with the flyash, will be removed from the exhaust gas by both the hot and cold side ESPs. Since trona is a sodium compound, it conditions the ash to lower its resistivity, having a positive effect on the operation of both hot and cold side ESPs.

The newer hot side precipitator is the primary particulate collector. The design margin built into the hot side precipitator is significant. Design parameters such as fuel ash content, heating value, sulfur content, as well as flue gas volume flow, temperature, and particulate grain loading were chosen to accommodate a wide range of operating conditions. Use of these design parameters resulted in an oversized precipitator relative to current operating conditions and fuel. Mirant feels confident it will be able to achieve

SO_2 reductions of up to 70% and keep particulate emission rates well in compliance because of the available collection margin in the precipitator and the fact that appropriately high gas temperature available at the point of trona injection.

Recent particulate tests on Unit #1 show the current performance and equipment condition of precipitators to be very good. The measured particulate emission rate at maximum load is 92% lower than the state operating permit limit. The added particulate from trona will increase the ash loading but will be well below the original hot precipitator design inlet particulate loading. Thus sufficient margin will exist in precipitator performance relative to the modeled emission rate limit. A stack particulate test at maximum load will be conducted in accordance with 40CFR-60 Appendix A Method 5 to confirm the precipitator performance.

As always, continuous monitoring of NOX and SO2 using the permanent certified Continuous Emission Monitors, (CEM's), will also take place during the testing as they do for normal operations.

References regarding trona in the industry:

http://webmineral.com/data/Trona.shtml

http://www.solvaychemicals.us/resource_Trona_Products.htm

http://www.mcilvainecompany.com/partandnox/_disc2/0000000d.htm

http://www.ocichemical.com/webapp/ociapp/products/markets.jsp

Potomac River Trona Injection Tests Unit 1

Test Plan

10/14/2005 Rev 0

Date	Test #	Test/Activity	Load MW Net	Test Duration Hours	Predicted SO2 Level In Coal Lb SO2/MBtu	SO2 Emissions - Without Trona lbs SO2/hr	SO2 Emissions - Without Trona lbs per Test	Estimated SO2 Emissions- With Trona lbs per Test	Estimated SO2 Emissions with Trona lb/MBtu	Trona Feed Stoich	Estimated % SO2 Removal	Trona Feed Rate Tons/hr	Trona Consumed in Test Tons	Trona Rotary Valves in Service	Trona Rotary Valve Feed Rate	Trona Feed per Injector
day 1																
	1	Mininum Load - Low Feed	35	3	1.2	522	1565	626	0.48	1.0	60%	0.61	1.84	4	307	153
	2	Mininum Load - Predicted Feed	35	3	1.2	522	1565	469	0.36	1.5	70%	0.92	2.76	4	460	230
	3	Mininum Load - High Feed	35	3	1.2	522	1565	313	0.24	2.0	80%	1.23	3.68	4	614	307
day 2																
	4	Mid Load - Low Feed	65	3	1.2	899	2698	1079	0.48	1.0	60%	1.06	3.18	4	529	265
	5	Mid Load - Predicted Feed	65	3	1.2	899	2698	809	0.36	1.5	70%	1.59	4.76	4	794	397
	6	Mid Load - High Feed	65	3	1.2	899	2698	540	0.24	2.0	80%	2.12	6.35	4	1058	529
day 3																
	7	Maximum Load - Low Feed	88	2.5	1.2	1182	2955	1182	0.48	1.0	60%	1.39	3.48	4	696	348
	8	Maximum Load -Predicted Feed	88	2.5	1.2	1182	2955	886	0.36	1.5	70%	2.09	5.22	4	1043	522
	9	Maximum Load - High Feed	88	2.5	1.2	1182	2955	591	0.24	2.0	80%	2.78	6.96	4	1391	696
day 4	11	Injector Characterization # 1	88	1	1.2	1182	1182	355	0.36	1.5	70%	2.09	2.09	3	1391	696
	12	Injector Characterization # 2	88	1	1.2	1182	1182	236	0.24	2.0	80%	2.78	2.78	3	1855	928
	13	Injector Characterization # 3	88	1	1.2	1182	1182	355	0.36	1.5	70%	2.09	2.09	3	1391	696
	14	Injector Characterization # 4	88	1	1.2	1182	1182	236	0.24	2.0	80%	2.78	2.78	3	1855	928
	15	Injector Characterization # 5	88	1	1.2	1182	1182	355	0.36	1.5	70%	2.09	2.09	3	1391	696
	16	Injector Characterization # 6	88	1	1.2	1182	1182	236	0.24	2.0	80%	2.78	2.78	3	1855	928
	17	Injector Characterization # 7	88	1	1.2	1182	1182	355	0.36	1.5	70%	2.09	2.09	3	1391	696
	18	Injector Characterization # 8	88	1	1.2	1182	1182	236	0.24	2.0	80%	2.78	2.78	3	1855	928
day 5	20	Steady maximum load at optimum settings and Method 5 particulate test	88	8	1.2	1182	9456	1891	0.24	2.0	80%	2.78	22.26	4	1391	696
day 6	21	Load following	35-88	16	1.2		less than 14,800 #/day	4440 #/ day	0.36	tbd	70%	tbd	tbd	tbd	tbd	tbd
day 7	22	Load following	35-88	16	1.2		less than 14,800 #/day	4440 #/ day	0.36	tbd	70%	tbd	tbd	tbd	tbd	tdd
day 8	23	Follow up testing to be determined if warranted based on previous test results	tbd	16	1.2											
day 9 and as required		more tests if warranted or normal unit operations per current daily limitations	tbd	16	1.2											

Notes

1. Testing of Trona will be interrupted for operations to clean the boiler and change generation levels as required. In no case will SO2 emissions exceed the daily limits nor will the 8 hours at full load be exceeded.

2. Trona injection rates and calculations use the current coal with a average sulfur content of 1.2 lb SO2/MBtu. If actual coal burned has different sulfur content than average then the actual test duration and activities will adjusted to assure that the current daily sulfur emission limit is not exceeded.

3. Actual individual test duration will be adjusted based on when steady state emissions reduction has been reached.

4. The % SO2 removal is estimated. Actual Trona feed rates will be adjusted from the target to achieve the approximate desired reduction

T-200®

Trona: T-200®

Material Safety Data Sheet

Chemical: Sodium Sesquicarbonate

NFPA: H=1 F=0 I=0 S= None
HMIS: H=1 F=0 R=0 PPE= Supplied by user; dependent on conditions

MSDS Number: Trona-1103
Effective Date: 11 November 2003
Issued by: Solvay Chemicals, Inc. Regulatory Affairs Department

Not valid three years after effective date or after issuance of superseding MSDS, whichever is earlier. French or Spanish translations of this MSDS may be available. Check www.solvaychemicals.us or call Solvay Chemicals, Inc. to verify the latest version or translation availability.

Material Safety Data Sheets contain country specific regulatory information; therefore, the MSDS's provided are for use only by customers of Solvay Chemicals, Inc. in North America. If you are located in a country other than Canada , Mexico, or the United States, please contact the Solvay Group company in your country for MSDS information applicable to your location.

1. Company and Product Identification

1.1 Product Name: T-200®
Chemical Name: Sodium sesquicarbonate
Synonyms: Mechanically refined trona.
Chemical Formula: $Na_2CO_3 \cdot NaHCO_3 \cdot 2H_2O$
Molecular Weight: 226
CAS Number: 533-96-0
EINECS Number: 208-580-9
Grades/Trade Names: T-200®

1.2 Recommended Uses: Consult supplier

1.3 Supplier:
Solvay Chemicals, Inc.
PO BOX 27328 Houston, TX 77227-7328
3333 Richmond Ave. Houston, Texas 77098

1.4 Emergency Telephone Numbers
Emergencies (USA): 1-800-424-9300 (CHEMTREC®)
Transportation Emergencies (INTERNATIONAL/MARITIME): 1-703-527-3887 (CHEMTREC®)
Transportation Emergencies (CANADA): 1-613-996-6666 (CANUTEC)
Transportation Emergencies (MEXICO-SETIQ): 01-800-00-214-00 (MEX. REPUBLIC)
525-559-1588 (Mexico City and metro area))

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SOLVAY

2. Composition/Information on Ingredients

INGREDIENTS	FORMULA	WT. PERCENT	CAS #	EINECS #
Sodium sesquicarbonate	$Na_2CO_3 \cdot NaHCO_3 \cdot 2H_2O$	98	533-96-0	208-580-9
Silica, crystalline quartz	SiO_2	<0.4	14808-60-7	238-878-4
H_20 insolubles	Not Applicable	2	Not Applicable	Not Applicable

3. Hazards Identification

Emergency Overview: Product reacts with acids to produce carbon dioxide and heat.

3.1 **Route of Entry:** Inhalation: Yes Skin: Yes Ingestion: Yes

3.2 **Potential Effects of exposure:** Sodium Sesquicarbonate is an alkaline product and may irritate digestive mucous membranes, eyes and healthy skin.

Inhalation: May be irritating to the nose, throat, and respiratory tract. Repeated exposure may cause nosebleeds.

Eyes: May cause irritation, severe watering and redness.

Skin contact: May cause skin irritation, seen as redness and swelling. In the presence of moisture or sweat, irritation may become more severe leading to rash.

Ingestion: May cause gastrointestinal irritation including nausea, vomiting, abdominal cramps and diarrhea. May cause irritation of the mouth and throat.

Carcinogenicity: See section 11.3

4. First-Aid Measures

General Recommendations: Treat for eye, skin and respiratory tract irritation.

4.1 **Inhalation:** Remove subject to a dust free environment and blow nose. If breathing is difficult or has stopped, administer artificial respiration. If any irritation is present, seek medical attention.

Eyes: In cases of splashing of concentrated solution in the eyes and face, treat the eyes first, and then continue first aid as defined under "contact with the skin." Rinse the eyes with running water for 15 minutes, maintaining the eyelids wide open to eliminate the product. Protect the eyes from strong light. Consult a physician or ophthalmologist in all cases.

Skin:

- Remove contaminated shoes, socks and clothing, under a shower if necessary; wash the affected skin with luke warm water.
- Keep warm (blanket), provide clean clothes.
- Consult with a physician in all cases.
- Dry carefully.
- In case of persistant pain or reddening, consult physician.

Ingestion: Do not induce vomiting. Remove any evidence of the product from the person's mouth.

If the subject is completely conscious: Give 8-12 ounces of water.
SEEK MEDICAL ATTENTION.

If the subject is unconscious:
NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSIOUS PERSON.

5. Fire-Fighting Measures

5.1 **Flash point:** Non combustible.

5.2 **Auto-ignition Temperature**: Not Applicable.

5.3 **Flammability Limits:** Not Applicable.

5.4 **Unusual Fire and Explosion Hazards:** Non-combustible and non-explosive.

5.5 **Common Extinguishing Methods:** In case of fire near stored product, all means of extinguishing are acceptable.

6. Accidental Release Measures

6.1 **Precautions:** Avoid excessive dust.

6.2 **Cleanup methods:** Clean up uncontaminated material and recycle into process. Place unusable material into a closed, labeled container compatible with the product.

6.3 **Precautions for protection of the environment:** Sweep up residual material. Do not flush to drain. Prevent material from entering public sewer systems or any waterways. Dispose of waste in accordance with applicable federal, state, and local environmental laws and regulations.

7. Handling and Storage

7.1 **Handling:**
- Avoid prolonged or repeated contact with the skin or eyes.
- Do not wear contact lenses without proper eye protection when using this product.
- Avoid prolonged or repeated breathing of dusts.
- Use vacuum or wet mop to clean up dust.

7.2 **Storage:** Keep in a closed, properly labeled container in a dry area away from acids. Protect from physical damage.

7.3 **Specific Uses:** See Section 1.2

7.4 **Packaging:**
- Bulk rail car and truck
- Paper+PE
- Woven plastic material + PE coating
- Woven plastic material + PE.

8. Exposure Controls/Personal Protection

8.1 Exposure Limit Values	TLV® ACGIH®-USA (2002)	OSHA PEL
Sodium Sesquicarbonate		Nuisance Dust-5 mg/m³ (Respirable Fraction), 15 mg/m³ (Total Dust).
Silica, Crystalline Quartz	0.05 mg/m³ for 8 hourTWA	10 mg/m³ / % Silica + 2

ACGIH® and TLV® are registered trademarks of the American Conference of Governmental Industrial Hygienists.

8.2 Exposure Controls:

8.2.1 Occupational Exposure Controls:

8.2.1.1 Ventilation: In places with the possibility for creating excessive dust in excess of exposure limits, ventilation should be provided.

8.2.1.2 Respiratory protection: In case of significant or accidental dust emissions, a NIOSH/MSHA approved dust respirator should be worn.

8.2.1.3 Hand protection: Cotton gloves are adequate for routine handling of dry product.

8.2.1.4 Eye protection: In cases of significant dust, dust proof goggles are recommended.

8.3 Other precautions: Protective clothing in dusty areas. An eyewash and safety shower should be nearby and ready for use. Use good hygiene practices when handling this product including changing work clothes after use. Do not eat, drink or smoke in areas where this material is handled.

9. Physical and Chemical Properties

9.1 Appearance: Powder

Color: White to off white

Odor: Odorless

9.2 Important Health, Safety and Environmental information:
pH: 10.1 (1-% solution).

Change of state:
Melting point: Decomposes at >70°C (158°F).
Boiling point: Not applicable.
Decompositon Temperature: Beginning at 70°C (158°F).

Flash Point: Not Applicable

Flammability: Not Applicable
(solid, gas)

Explosive Properties: Not Applicable

Oxidizing Properties: Not Applicable
Vapor Pressure: Not Applicable

Relative Density: Specific gravity (H_2O=1): 2.11

Solubility:
Water: 20% maximum by weight in water @ 30°C (86°F).
Fat: Not Applicable.

Partition coefficient: P (n-octanol/water): Not applicable.

Viscosity: Not listed

Vapor Density (air=1): Not Applicable.

Evaporation Rate: Not Applicable.

9.3 **Other Information:**

Bulk Density: 49 lbs./ft³ (780 kg/m³)

10. Stability and Reactivity

Stability: Stable at ambient temperature and atmospheric pressure.

10.1 **Conditions to avoid:**
- Protect from moisture
- Mixing of acid, oxidizing agents and sodium sesquicarbonate solutions could cause CO_2 evolution and may cause severe splattering.

10.2 **Materials and substances to avoid:** Sodium sesquicarbonate mixed with lime dust in the presence of moisture will form caustic soda, which can cause serious burns. When heated, may react with Aluminum (Al). Reacts with acids and releases large volumes of CO_2 gas and heat.

10.3 **Hazardous decomposition products:** Carbon dioxide (CO_2) is evolved when mixed with acids and oxidizing agents.

10.4 **Hazardous Polymerization:** None.

10.5 **Other information:** None.

11. Toxicological Information

11.1 **Acute toxicity:**
Inhalation: LC_{50} 2300 mg/m³/2h(sodium carbonate) species: rat.
Oral: LD_{50} 4090 mg/kg (sodium carbonate) species: rat.

Dermal: LD_{50}, rabbit, >2,000 mg/kg (sodium carbonate)

11.2/11.3 **Chronic toxicity/ Carcinogenic Designation:** This product contains less than 0.4% Silica, crystalline quartz. Silica, crystalline quartz at greater than 1% has been shown to cause silicosis, a progressive lung disease. Silica is a suspected carcinogen.

12. Ecological Information

12.1 **Acute ecotoxicity:**
SODIUM BICARBONATE: **Crustaceans**, Daphnia magna, LC_{50}, 48 hours, 2350 mg/l. **Fishes**, Gambusia affinis, LC_{50}, 96 hours, 7550 mg/l.

SODIUM CARBONATE: **Crustaceans**, Daphnia sp., LC_{50}, 48 hours, from 115 to 150 mg/l. **Fishes**, various species, LC_{50}, 96 hours, from 30 to 1,200 mg/l.

12.2 **Chronic ecotoxicity:** None listed.

12.3 **Mobility:** Water-Considerable solubility and motility.

12.4 **Degradation**
Abiotic:
- Water, hydrolysis. Degradations products: Carbonate (pH.10/bicarbonate (pH 6-10)/carbonic acid/carbon dioxide (pH<6)
- Soil-Result: Hydrolysis as a function of pH.

Biotic: Not Applicable.

12.5 **Potential for bioaccumulation:** Not Applicable.

12.6 **Other adverse effects /Comments:** Observed effects are related to alkaline properties of product. Product is not significantly hazardous for the environment.

13. Disposal Considerations

13.1 **Waste treatment:** T-200 is not a listed hazardous waste under 40 CFR 261. However, state and local regulations for waste disposal may be more restrictive. Spilled product should be disposed of in an EPA approved disposal facility in accordance with applicable national, state and local environmental laws and regulations.

13.2 **Packaging treatment:** To avoid treatments, use dedicated containers where possible. Rinse the empty containers and treat the effluent in the same way as waste. Consult current federal, state and local regulations regarding the proper disposal of emptied containers.

13.3 **RCRA Hazardous Waste:** Not Listed.

14. Transport Information

Mode	DOT	IMDG	IATA
UN Number	Not a regulated hazardous material	Not a regulated hazardous material	Not a regulated hazardous material
Other	It is recommended that ERG guide # 111 be used for all non DOT regulated material.		
STCC #:	28-123-87		

15. Regulatory Information

National Regulations (US)

TSCA Inventory 8(b): Yes

SARA Title III Sec. 302/303 Extremely Hazardous Substances (40 CFR355): No

SARA Title III Sec. 311/312 (40 CFR 370:

Hazard Category:
- Acute and Chronic health hazard
- Threshold planning quantity - 10,000 lbs

SARA Title III Sec. 313 Toxic Chemical Emissions Reporting (40 CFR 372): No

CERCLA Hazardous Substance (40CFR Part 302)

Listed: No
Unlisted Substance: No

State Component Listing: None identified

National Regulations (Canada)

Canadian DSL Registration: Yes

WHMIS Classification: Not Applicable

This product has been classified in accordance with the hazard criteria of the ***Controlled Products Regulations*** and the MSDS contains all the information required by the ***Controlled Products Regulations.***

Labeling according to Directive 1999/45/EC.

Name of dangerous products-sodium sesquicarbonate

Symbols	**Xi**	**Irritant**
Phrases R	36	Irritating to eyes

16. Other Information

16.1 Ratings:

NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)

Health = 1 Fire = 0 Instability = 0 Special = none

HMIS (HAZARDOUS MATERIAL INFORMATION SYSTEM)

Health = 1 Fire = 0 Reactivity = 0 PPE = Supplied by User; dependent on local conditions

16.2 Other Information:

The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure product).

To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither Solvay Chemicals, Inc. nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes.

16.3 Reason for revision:
Supersedes edition: Solvay Minerals MSDS #015 dated 4/9/03.
Purpose of revision: Change Company name and MSDS format.

Final Report

Particulate Emissions Testing
Unit 1
Potomac River Generating Station
Alexandria, Virginia

Prepared for:

Mirant Potomac River, LLC
1400 North Royal St.
Alexandria, VA 22314

Prepared by:

TRC Environmental Corporation
Boott Mills South
Foot of John Street
Lowell, Massachusetts 01852
(978) 970-5600

October 2005

TRC Project No. 49752

October 2005

FINAL REPORT

Particulate Emissions Testing
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1.0 INTRODUCTION

1.1 OVERVIEW

TRC Environmental Corporation (TRC) of Lowell, Massachusetts was retained by Mirant Potomac River, LLC (Mirant) to provide sampling and analytical support in completing a Particulate Emission Test of Unit 1 of the Potomac River generating facility. The Test Program at the Potomac facility involved the completion of two series of emissions tests for particulate matter (PM), the first during full ESP operation and the second with the number of ESP fields reduced. All tests were completed while Unit 1 was operating at full load (84Mw).

1.2 SCOPE OF WORK

The test program required the completion of a series of three 1-hour test runs for each ESP operating condition. The testing determined the emission rate of particulate matter in terms of the emission standard (lb/MMBTU). The required measurement parameters and EPA test methods to accomplish the objective were:

40 CFR Part 60, Appendix A, EPA Methods

- Method 1 and 2 - Velocity
- Method 3A - Oxygen and Carbon Dioxide
- Method 4 - Moisture
- Method 5 - Particulate Matter

Section 2 of this report presents a summary of the particulate emissions of each run. Section 3 contains plant operating data and overview of the sampling locations used. Section 4 describes the procedures used during the field sampling program. Section 5 outlines the procedures and calculations used to analyze and report the samples during this test program. Section 6 presents an overview of TRC's quality assurance program.

2.0 SUMMARY OF RESULTS

This section presents a summary of the particulate emissions tests conducted at Unit 1 Potomac River Generating Station. The field sampling data sheets are located in Appendix A. The calculation summary forms can be found in Appendix B. The analytical data reports can be found in Appendix C. The facility process data can be found in Appendix D, and the equipment calibration data sheets can be found in Appendix E.

2.1 UNIT 1 – Full ESP Operation

Three1-hour test runs were conducted in accordance with EPA Method 5. Tests were completed on September 28th and 30th, 2005, with 13 of 14 precipitator sections in service. The results of the three Method 5 test runs are presented in Table 2-1. The average particulate emission rate of 0.0072 lb/MMBTU was less than the current source emission limit of 0.12 lb/MMBTU.

2.2 UNIT 1 – Reduced ESP Operation

Three1-hour test runs were conducted in accordance with EPA Method 5. Tests were completed on September 29th and 30th, 2005, with 6 of 14 hot precipitator sections in service and 4 of 6 cold precipitator sections in service. Precipitator sections were shut off, for this test period only, to determine the particulate collection margin in the hot precipitators, which were oversized by design. Graphics indicating the sections of the hot and cold precipitators that were in service during the second set of tests are presented in Figures 1 & 2. The results of the three Method 5 test runs are presented in Table 2-2. The average particulate emission rate of 0.0095 lb/MMBTU was less than the current source emission limit of 0.12 lb/MMBTU.

FLOW

FLOW

Figure 1

HOT PRECIPITATOR GAS PASS DIAGRAM

South

A 4	Out of Service for PM Test A 3	A 2	A 1
B	B	B	B
Out of Service for PM Test C 8	C 7	C 6	C 5
D	D	D	D
E 12	E 11	E 10	E 9
F	Out of Service for PM Test F	F	F
G 16	G 15	G 14	G 13

FLOW

FLOW

Figure 2

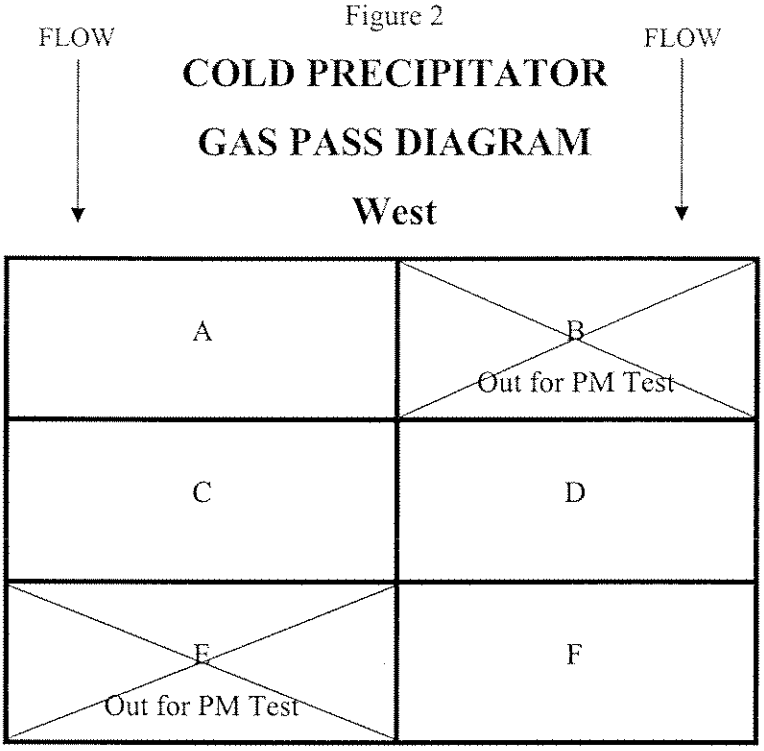
FLOW
FLOW
COLD PRECIPITATOR
GAS PASS DIAGRAM
West
A
B
Out for PM Test
C
D
E
Out for PM Test
F

TABLE 2-1. PM EMISSION SUMMARY FOR UNIT 1 – Full ESP Operation

RUN	*1*	*2*	*3*	*Average*
Net Sampling Time, minutes	60	60	60	60
Particulate Catch, mg	5.9	10.4	10.4	8.9
Volume of Gas Collected, (dscf) at 68^0F	38.162	38.919	38.372	38.485
CO_2 Concentration, % dry	12.2	12.1	12.7	12.3
O_2 Concentration, % dry	6.5	6.5	6.6	6.5
Particulate Matter Emission Rate, lb/MMBtu	0.0048	0.0083	0.0084	0.0072

TABLE 2-2. PM EMISSION SUMMARY FOR UNIT 1 – Reduced ESP Operation

RUN	*1*	*2*	*3*	*Average*
Net Sampling Time, minutes	60	60	60	60
Particulate Catch, mg	13.0	12.3	11.1	12.1
Volume of Gas Collected, (dscf) at 68^0F	40.367	39.249	39.212	39.609
CO_2 Concentration, % dry	12.7	12.5	12.5	12.6
O_2 Concentration, % dry	6.5	6.4	6.6	6.5
Particulate Matter Emission Rate, lb/MMBtu	0.0100	0.0096	0.0088	0.0095

NEWS
RELEASE

FOR IMMEDIATE RELEASE

PJM APPROVES ADDITIONAL $297 MILLION IN TRANSMISSION SYSTEM IMPROVEMENTS

Plan Addresses Reliability Concerns in District of Columbia

(Valley Forge, Pa. – Nov. 1, 2005) – PJM Interconnection has approved an additional $297 million in upgrades to the electric transmission system in the 13-state PJM region. The approved upgrades include $70 million for the addition of two new transmission lines to address concerns about reliability in the District of Columbia.

The transmission investments are part of PJM's current Regional Transmission Expansion Plan (RTEP). The plan is the end result of a continuing, systematic process to make necessary grid improvements. Transmission improvements keep the system in compliance with reliability standards. These standards ensure that the system continues to deliver electricity throughout the area. Transmission owners in PJM pay for the grid improvements. RTEP upgrades also lead to more efficient wholesale electricity markets when they reduce congestion by eliminating barriers to moving lower cost electricity to customers. The RTEP also accommodates interconnection of new generating projects.

"PJM's regional planning process ensures that critical investments are made to the grid to maintain and strengthen reliability," said Phillip G. Harris, PJM president and chief executive officer. "Only a regional organization, such as PJM, has both the big picture perspective to determine the most effective improvements as well as the authority, working with the affected transmission owners, to mandate that the necessary infrastructure be constructed."

As part of its commitment to reliability, PJM is expanding its RTEP process to look further into the future and consider additional developments, such as retirement or closure of a generator. The transmission additions in the Washington, D.C. metro area, identified by Pepco, the local utility serving the area, are the result of the current reduced output and uncertain future status of the coal-fired Potomac River Station due to environmental concerns. The plant, located in Alexandria, Va. is important to maintain electric reliability in the District of Columbia.

The updates to the RTEP include work to connect 39 new generation projects, which will contribute 2,500 megawatts of new generation capacity. That is enough electricity to power nearly two million homes.

–MORE–

Contact: PJM News, toll free at 866-PJM-NEWS (756-6397)

Pepco Holdings Inc

Pepco Accelerates Plans For New Transmission Lines To Replace Need For Potomac River Power Plant

Friday, September 09, 2005

Pepco today announced that it is initiating a process with the District of Columbia Public Service Commission to accelerate construction of transmission facilities in the Washington, D.C., region. This will ensure reliability in the absence of the Potomac River Generating Station, which was recently shut down by its owner, Mirant Corporation, in response to an environmental study. The plant plays a critical role in backing up transmission lines serving customers in Washington, D.C.

"Given Mirant's recent decisions, we believe action is necessary to satisfy Pepco's obligation to provide reliable service to our customers. Therefore, we are advancing contingency plans to build new underground transmission lines on existing rights of way to enable us to meet customers' needs without the plant," said Dennis Wraase, Chairman of the Board, President and Chief Executive Officer of Pepco Holdings, Inc., Pepco's parent company. The transmission construction project is expected to take about 18 months. In the meantime, Pepco supports the District of Columbia Public Service Commission's recent petition asking federal authorities to order Mirant to resume operating the plant.

###

About Pepco:

Pepco, a subsidiary of Pepco Holdings, Inc. (NYSE: POM), delivers safe, reliable and affordable electric service to more than 725,000 customers in Maryland and the District of Columbia.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

OCT 21 2005

Honorable James P. Moran
U. S. House of Representatives
Washington, D.C. 20515-4608

Dear Representative Moran:

Thank you for your letter dated September 29, 2005 to the U.S. Environmental Protection Agency (EPA) concerning air emissions from Mirant's Potomac River Power Plant located in Alexandria, Virginia.

EPA has been actively involved in the evaluation of the health and safety issues caused by the operation of the coal-fired boiler units at the Potomac River plant for some time. The results of a Downwash Modeling Study, first received by the Virginia Department of Environmental Quality (VADEQ) in late August 2005, indicated substantial modeled exceedances of the sulfur dioxide, nitrogen oxide, and PM10 National Ambient Air Quality Standards (NAAQS) have occurred. EPA realizes the complexity of the technical and air dispersion modeling evaluations would be significant, and has assigned appropriate qualified technical personnel to this effort. Subsequently, EPA has been actively engaged in providing technical support to the VADEQ during their evaluation of the air dispersion modeling conducted by Mirant, including ongoing reduced operational scenarios currently being evaluated by Mirant engineers and modelers.

EPA believes that the health and safety of the local residents near the Potomac River plant is of paramount concern, and I can assure you that EPA will not support any continued full or partial operation of the Potomac River plant without verification from EPA experts that there will not be any modeled exceedances of the NAAQS caused by emissions from the plant.

If you have any questions, please do not hesitate to contact me or have your staff contact Ms. Stephanie Branche, Virginia Liaison, at 215-814-5556.

Sincerely,

Donald S. Welsh

Donald S. Welsh
Regional Administrator

cc: Mr. Robert Burnley
Director, VADEQ

DEQ
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL NEWS

DEQ Public Affairs Office, 629 East Main St., Richmond, Va. 23219, fax (804) 698-4346
www.deq.virginia.gov

FOR IMMEDIATE RELEASE
October 19, 2005

Contact: **Bill Hayden**
(804) 698-4447
wphayden@deq.virginia.gov

VIRGINIA EVALUATES MIRANT'S PLAN FOR OPERATING ALEXANDRIA POWER PLANT

RICHMOND, VA. – The Virginia Department of Environmental Quality is continuing its evaluation of operations at the Mirant Potomac River power plant in Alexandria, focusing on the goal of protecting people's health and the environment.

DEQ has found no indication that Mirant's current plan of limited operation of one boiler unit violates federal health-based air quality standards. DEQ's evaluation is ongoing, and additional information will be requested from Mirant as needed. This will ensure that emissions of nitrogen dioxide, sulfur dioxide and particles do not reach levels that could harm people's health.

In addition, DEQ is analyzing a proposal by Mirant to use new technology to reduce emissions of sulfur dioxide. The proposal calls for injecting a mineral called trona into the gas exhaust of one boiler to help neutralize sulfur dioxide.

"DEQ continues to watch operations at the Mirant facility very closely," DEQ Director Robert G. Burnley said. "Our goal in this case remains unchanged – to protect the health of the people of Alexandria and their environment – and that is what we are going to accomplish."

Mirant resumed operations of one unit at the plant in September, after it had shut the plant down in August in compliance with a DEQ directive to ensure that the plant meets air quality standards.

###

Powerless

ights Out? The Region's Fraying Electric Supply

y Peter Behr
nday, December 11, 2005; B05

. 56-year-old power plant on the Potomac River in Alexandria is at ıe center of a nightmare scenario for the nation's capital.

ver since the Truman administration, the plant has been the rincipal source of electricity for downtown Washington -- powering esidences, businesses and the heart of the federal government. Then ı August, the plant was shut down, not because of its advanced age ut because of environmental concerns. Alexandria officials and earby residents have long detested the coal-fired facility, charging hat its smokestack emissions threaten public health. Since August, pressure from Virginia state authorities has kept ıost or all of the plant shuttered while the plant's owner has been scrambling to come up with a plan to satisfy state egulators and local critics.

The idling of four of the plant's five generators has left the District in a fragile position. Now the downtown area lepends on electricity transmitted by two high-voltage Pepco transmission links that run from the interstate power grid 'aryland, then underground to Virginia and back under the Potomac River into the District.

Worried District officials have issued apocalyptic warnings that a paralyzing downtown blackout would result if those wo lines accidentally failed together -- an unlikely prospect, but one that has happened before. The closing of the Potomac River Generating Station has also called unwelcome attention to the risk of a blackout from a terrorist attack ın the weakest points in the region's power grid.

A blackout could quickly trigger an environmental tragedy, too. Power would be lost at the huge Blue Plains waste treatment plant in Southeast Washington and, unless it were restored within a day, millions of gallons of raw sewage would be discharged into the Potomac and would run eventually into Chesapeake Bay, according to District officials. The two Pepco lines are scheduled to be shut down for maintenance -- one early next year -- but can't be if the Alexandria plant isn't running, officials say. A lengthy delay in maintenance will only heighten the danger of a breakdown.

Thus this power plant at the capital's doorstep has emerged as a symbol of a conflict between environmental safeguards and reliable electric power supply, a conflict that will be sharpened in years ahead by the issues of homeland security and global warming. In this debate so far, every constituency has played its expected role -- environmentalists have raised legitimate concerns, and the two companies responsible for delivering electricity to the city have abided by conventional profit incentives and industry standards. But business as usual doesn't assure that plants will be built where they're needed for secure electricity. There is no natural constituency for preventing a disaster that hasn't happened. Tomorrow's emergency supply may look like today's costly redundancy. And therein lies a problem that extends beyond the plant along the Potomac.

U.S. power grid got little attention until the blackout of August 2003, which started when a few power lines in Ohio sagged into trees and shorted, cascading into an outage across an eight-state area of the northeastern United States, affecting 50 million residents. The blackout exposed the grid's vulnerability to negligence, accidental failures and terrorist attack.

o Pepco's two high-voltage lines have become the lifelines of the District's downtown. A blackout could last as long s three days, according to Mirant, the time needed to bring the plant fully back on line. Pepco has proposed that it uild, at a cost of $70 million, two more high-voltage transmission lines through Maryland to supply downtown Vashington and that it create a new power link to the Blue Plains plant. The need for those new lines and other security ures for the region's grid has been obvious since the 2001 terrorist attacks. The devastating impact of lasting ower outages has been illuminated by the recent hurricanes along the Gulf Coast. But a new power link for Blue lains wouldn't be ready until summer, at best, and additional lines for the District may be two years away.

leanwhile no one is making any proposals for securing and upgrading the national grid. The price tag for that would e enormous, running into the billions of dollars. "The market isn't going to justify it," says Pepco Holdings Inc. vice resident William M. Gausman.

As such dilemmas persist here and elsewhere in the country, some experts and industry executives are calling for maller backup plans -- investments in emergency power supplies to keep strategic services like police, fire, hospitals nd water treatment running if a blackout strikes.

There is great benefit to have some kind of backup so that people can function normally, to meet the basic demands of life in an extended outage," says Gausman. Following the widespread power losses from Hurricane Isabel in 2003, Pepco convened meetings here on the need for more backup power capabilities at critical facilities.

But the unresolved issues of who decides, and who pays, linger on and on. It never seems urgent to plan for an emergency until the emergency is upon us.

uthor's e-mail:

behrp@washpost.com

r Behr, a former energy reporter for The Post, is researching a book on the nation's electricity grid.

ALLIANCE FOR THE CHESAPEAKE BAY
BAY JOURNAL

New MD rules would require 6 coal-fired power plants to slash emissions

By Associated Press

Maryland may require billions of dollars in improvements to coal-fired power plants in metropolitan Baltimore and the District of Columbia in what's described as the most sweeping air pollution control measure ever enacted in the state. Power plants would have to sharply reduce pollutants such as nitrogen oxide—a major Bay pollutant—and sulfur dioxide by 2010, changes that authorities said could slash some harmful power plant emissions by up to 85 percent.

The proposed change, announced by Gov. Robert Ehrlich, comes after the legislature last year considered, but could not agree on, similar air pollution efforts. Ehrlich's version would not affect carbon dioxide emissions from the six power plants, a feature of the bill he opposed last session. He said his version would make huge strides in air quality without putting an undue burden on power suppliers.

The price tag for the cleaner standards could run into the billions and will be paid by the power companies, said Tom Snyder, director of the state's Air and Radiation Management Administration.

One power company that would be affected, Baltimore-based Constellation Energy Group Inc., warned that the change could mean higher bills for consumers.

"Without the flexibility for cost-effectively meeting new targets, the price paid by Maryland energy consumers could unnecessarily increase," said a statement put out by Constellation. The company also said it favored regional or national rule changes, not state-level changes.

The other company with power plants that would be affected, Atlanta-based Mirant Co., did not immediately respond to the proposal.

Jonas Jacobson, deputy secretary of the Maryland Department of the Environment, said the tougher rules aren't an option if the state is to have a chance of meeting future federal air quality standards.

"What we realized was that there was a gap in the benefits that we would get from the federal guidelines and what we needed to meet attainment of clean air standards by 2010," Jacobson said.

Environmental experts said they were happy to see changes made at all. "It's a major step," said Donald Boesch, director of the University of Maryland's Center for Environmental Science. Of the tougher emissions standard, he said, "It's something we had to do in the long run and we had to accelerate it."

Others weren't so happy. The Chesapeake Climate Action Network, a nonprofit advocacy group, said the lack of

STATE OF MARYLAND
OFFICE OF THE GOVERNOR

ROBERT L. EHRLICH, JR.
GOVERNOR

FOR IMMEDIATE RELEASE:
Thursday, November 17, 2005

CONTACT: Governor's Office
Shareese N. DeLeaver
Henry P. Fawell
(410) 974.2316

Maryland Department
of the Environment
Julie Oberg
Rich McIntire
(410) 537.3003

Governor Ehrlich Announces Bold Air Quality Improvement Plan

BETHESDA – Marylanders will breathe cleaner air in coming years under a bold new air quality plan unveiled today by Governor Robert L. Ehrlich Jr. Pollutants being emitted from power plants will be cut extensively under the Maryland Clean Power Rule – the most sweeping air pollution control measure enacted in Maryland history.

Speaking at Walt Whitman High School in Bethesda, surrounded by students of an advanced placement environmental science course, Governor Ehrlich outlined how his initiative will cut Maryland power plant emissions up to 85 percent depending on the pollutant, five years ahead of requirements set by the U.S. Environmental Protection Agency's (EPA) Clean Air Interstate Rule.

"The Maryland Clean Power Rule, combined with our historic Chesapeake Bay Restoration Act, makes Maryland a national leader in air and water quality," said Governor Ehrlich. "Our plan dramatically improves year round controls on power plant emissions and will take bold action to reduce harmful mercury levels. In addition to cleaning the air we breathe, the rule will reduce nitrogen pollution entering the Chesapeake Bay, 30 percent of which comes from the air. Simply put, my Administration's air and water quality strategy is making Maryland a cleaner and safer place to live."

The Maryland Clean Power Rule:

- Imposes emission rate limits on Maryland's six largest coal-fired electric power plants that contribute to ozone, particle, regional haze, and acid rain pollution;
- Reduces mercury emissions from Maryland's six largest coal-fired electric power plants;

Md. to Restrict Coal-Burning Power Plants

Democrats Say Ehrlich's Plan to Limit Emissions Is Modest but Welcome

By Matthew Mosk
and Elizabeth Williamson
Washington Post Staff Writers

Maryland Gov. Robert L. Ehrlich Jr. yesterday announced tighter rules aimed at reducing the amount of pollution spewing from the smokestacks of the state's six largest coal-fired power plants.

The requirements, set to take effect next summer, could help Maryland meet most federal air quality standards well ahead of a 2010 deadline. Ehrlich (R) said he believes the rules also will aid in the recovery of the Chesapeake Bay, which he has made a goal of his administration.

"Today is a historic day in Maryland policy history," Ehrlich told students in an Advanced Placement Environmental Science class at Walt Whitman High School in Bethesda, where he unveiled his plan.

The governor told them that it was "the most sweeping, most far-reaching" initiative he could offer without crippling two of the state's largest power providers. "Policymakers try to achieve balance," he said. "I believe this is an aggressive but doable plan."

Several environmental leaders and Democratic lawmakers described the governor's initiative as a welcome, if modest, step.

"Look, it's better than not doing anything, and opposing everything. In that regard, I appreciate it and welcome it," said Sen. Paul G. Pinsky (D-Prince George's), whose own fresh-air legislation drew opposition from the governor during the last General Assembly session. "But this is an extremely modest measure. To say this is problem solved, it just isn't."

Pinsky and others said they would renew their push for a bill enforcing more stringent rules, noting that Ehrlich's proposal is a regulation — more easily changed or relaxed than a state law.

"What's to stop him from reversing himself and getting rid of these rules as soon as people turn their backs?" asked Montgomery County Executive Douglas M. Duncan, a Democrat running for governor who has endorsed Pinsky's approach. "That's why we need a law."

BY SUSAN BIDDLE — THE WASHINGTON POST

Gov. Robert L. Ehrlich Jr., with Secretary of the Environment Kendl P. Philbrick at Walt Whitman High School, described his plan as "aggressive but doable."

The governor's political supporters said the new clean-air initiative will burnish Ehrlich's environmental credentials in time for his 2006 reelection bid, especially when coupled with the "flush tax" he imposed two years ago to pay for improvements at treatment plants that dump sewage into the Chesapeake Bay.

Under the clean-air plan, three power plants in Montgomery County and Southern Maryland owned by Mirant Corp. and three in Anne Arundel and Baltimore counties owned by Constellation Energy Group will have to reduce emissions of nitrogen oxides, sulfur dioxide and mercury. The companies no longer will be permitted to purchase credits that enable them to bypass those standards.

Ehrlich said the new regulations come "with a serious price tag" for the two companies, estimated in the hundreds of millions of dollars. Constellation released a statement yesterday saying that could mean higher electric bills for Maryland customers. A spokesman for Atlanta-based Mirant said officials there were studying the proposal.

In part, the proposal nudges the utilities in a direction they were being forced to go. During the Clinton administration, coal-burning power plants were classified as a source of toxic mercury and told to reduce mercury emissions by up to 90 percent by 2008. This spring, the Bush administration changed the standards, announcing rules that would have the plants cut mercury emissions by 70 percent by 2018. Ehrlich's proposal is aimed at meeting standards for ozone and fine particle reductions set for 2010, goals established by the Environmental Protection Agency last year for communities that do not meet the nation's smog standards. The District and surrounding counties and cities in Maryland and Virginia were among 474 jurisdictions nationwide that failed to meet those standards.

Fifteen states and Baltimore are suing the EPA, pushing for stricter controls on mercury. Virginia is not a party to the lawsuit over mercury rules. Rules on nitrogen oxide, sulfur dioxide and mercury emissions for Virginia "are a work in progress," said Frank O'Donnell, president of Clean Air Watch, a Washington-based watchdog group.

O'Donnell said Ehrlich's proposal "ignores the whole question of carbon dioxide from power plants, which is essentially protecting the power industry from doing its share to deal with global warming, and aligns this plan completely with the Bush Administration on that point."

Maryland Democrats suggested that Ehrlich chose to enact his plan through executive regulations, rather than do battle with the Democrat-controlled legislature over new pollution limits.

Senate President Thomas V. Mike Miller Jr. (D-Calvert) said lawmakers retain the authority to review the governor's plan or render it irrelevant by passing their own proposal.

"Can we make something good out of this? Absolutely," Miller said. "We can widen it, we can enhance it, we can put it into statute."

Miller said Ehrlich also may have inadvertently breathed new life into legislation that would seek a 90 percent mercury reduction far earlier than 2018, the deadline in Ehrlich's plan, as well as significant carbon dioxide emission restrictions, which go unaddressed in the plan.

But Sen. Sandra B. Schrader (R-Howard) said she does not believe that legislation will be needed.

"By coming out and stepping forward now, he has preempted their argument," she said.

Washington Post
NOV 18, 2005

MARYLAND
Department of the Environment

Facts About...

Maryland Clean Power Rule

Why does Maryland need the Clean Power Rule?
Maryland's Clean Power Rule is the most sweeping air pollution control measure ever considered in Maryland. The rule will protect public health and assure Maryland will attain the new, more stringent ozone and fine particle federal air quality standards. It also protects the Chesapeake Bay by reducing nitrogen and mercury pollution from the air. Additionally, the rule helps to improve visibility throughout scenic areas in Maryland and other states.

Which sources are affected by the rule?
The rule impacts the six largest coal-burning power plants in Maryland, which account for approximately 95 percent of the state's power plant emissions. Facilities covered include: Constellation Energy Group's Brandon Shores, Crane, and Wagner plants; and Mirant Corporation's Chalk Point, Morgantown and Dickerson plants.

Which pollutants are covered by this rule and how much pollution will be reduced?
This rule requires year-round emission controls that will significantly reduce nitrogen oxides (NOx), sulfur dioxide (SO_2) and mercury from power plants located in Maryland. NOx emissions in Maryland will be reduced by 45,000 tons per year (69%). SO_2 emissions will be reduced by 205,000 tons per year (85%). Mercury emissions will be reduced by 1,400 pounds per year (70%) by 2010. A second phase of controls will reduce mercury by 90% by 2018.

How does the Maryland Clean Power Rule compare to the federal Clean Air Rule?
The Maryland Clean Power Rule will provide larger reductions in NOx, SO_2 and mercury in a faster timeframe than the federal Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR). The Maryland Clean Power Rule also prohibits Maryland power plants from acquiring out-of-state emissions allowances (trading credits) in lieu of adding pollution controls locally.

Does the rule bring us to attainment of the federal air quality standards?
The Maryland Clean Power Rule is the cornerstone of Maryland's plan to meet the new federal ozone and fine particle standards. Local emission reductions from the Clean Power Rule will provide more than 90 percent of the reductions needed in Maryland to comply with the 2010 ozone and fine particle standards.

How does this rule compare to similar regional efforts?
This rule builds on Maryland's existing efforts with the Ozone Transport Commission (OTC). The OTC's Multi-Pollutant Workgroup, chaired by Maryland, has been working over the past several years to develop a regional power plant control program that is more aggressive than the federal approach because EPA's analysis of CAIR shows that Maryland, as well as several other states, will not comply with the new ozone standard with CAIR alone.

How does the Clean Power Rule benefit the Chesapeake Bay?
More than one-third of the pollution entering the Chesapeake Bay comes from the air. Pollutants released into the air (primarily from power plants and vehicle emissions) eventually make their way back down to the earth's surface and are dispersed onto the land and transported into waterways. The emission controls on power plants will reduce nitrogen entering the Bay by up to 900,000 pounds each year and will reduce mercury significantly.

MDE

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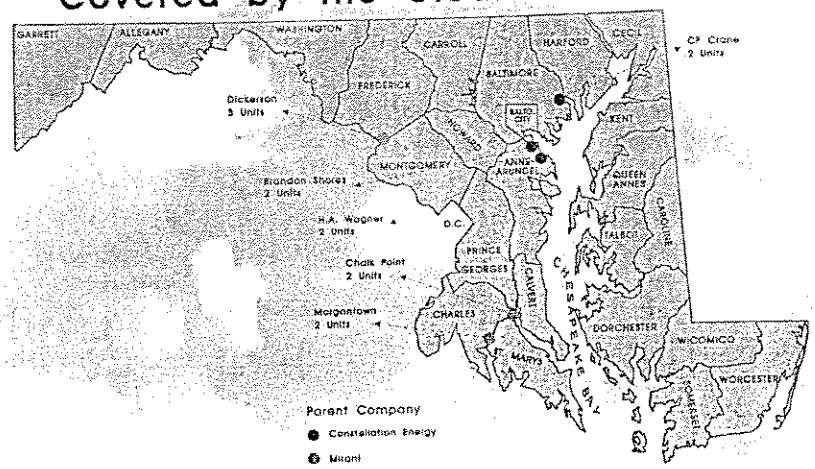
Robert L. Ehrlich, Jr., Governor

Michael S. Steele, Lt. Governor

MARYLAND

Coal-fired Power Plants Covered by the Clean Power Rule



Source: Maryland Department of the Environment

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Clean Power Rule Benefits

Larger, Earlier Emission Reductions

Pollution Reduction	EPA Clean Air Interstate Rule / Clean Air Mercury Rule	Maryland Clean Power Rule
Nitrogen Oxide (NOx)	↓ 42% ↓ 27,000 tons per year	↓ 69% ↓ 45,000 tons per year
Sulfur Dioxide (SO_2)	↓ 50% ↓ 120,000 tons per year	↓ 85% ↓ 205,000 tons per year
Mercury (Hg)	↓ 46% Reduction ↓ 1,090 pounds per year	↓ 70% ↓ ~1,400 pounds per year
Timing	Full Implementation = 2015 (2018 for Mercury)	Full Implementation = 2010 (2018 for Mercury)
Regulatory Approach	Continued Trading	In-State Reductions

Source: Maryland Department of the Environment

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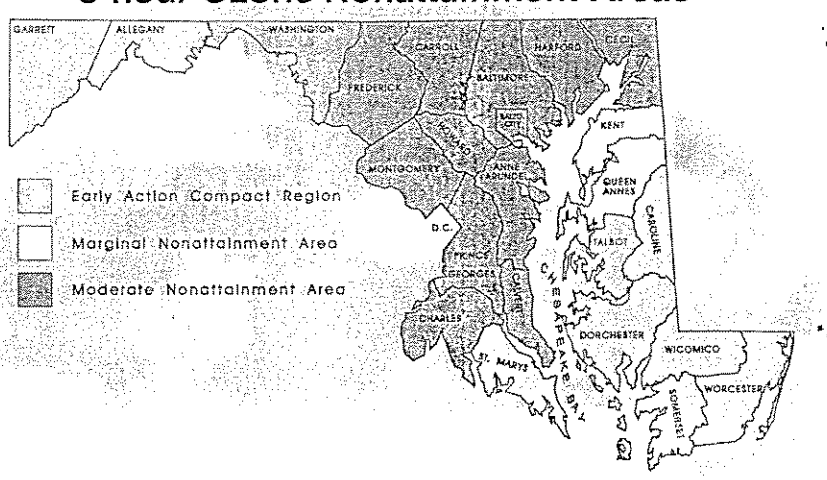
MARYLAND

8-hour Ozone Nonattainment Areas



Source: Maryland Department of the Environment

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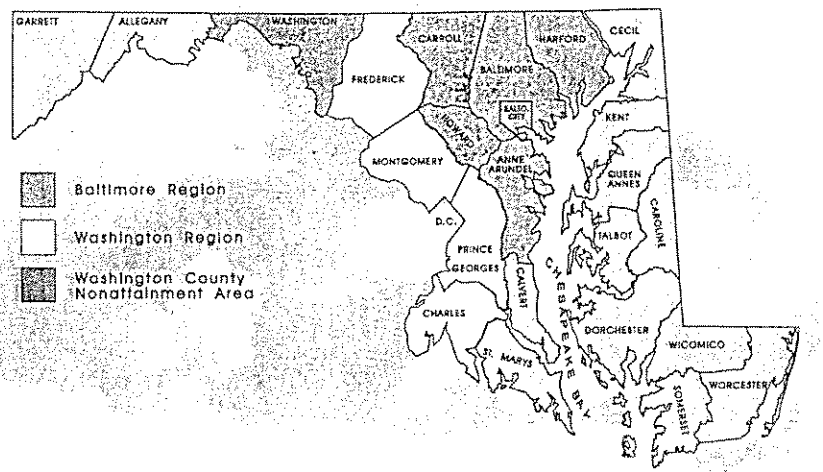
Fine Particle Nonattainment Areas



Source: Maryland Department of the Environment